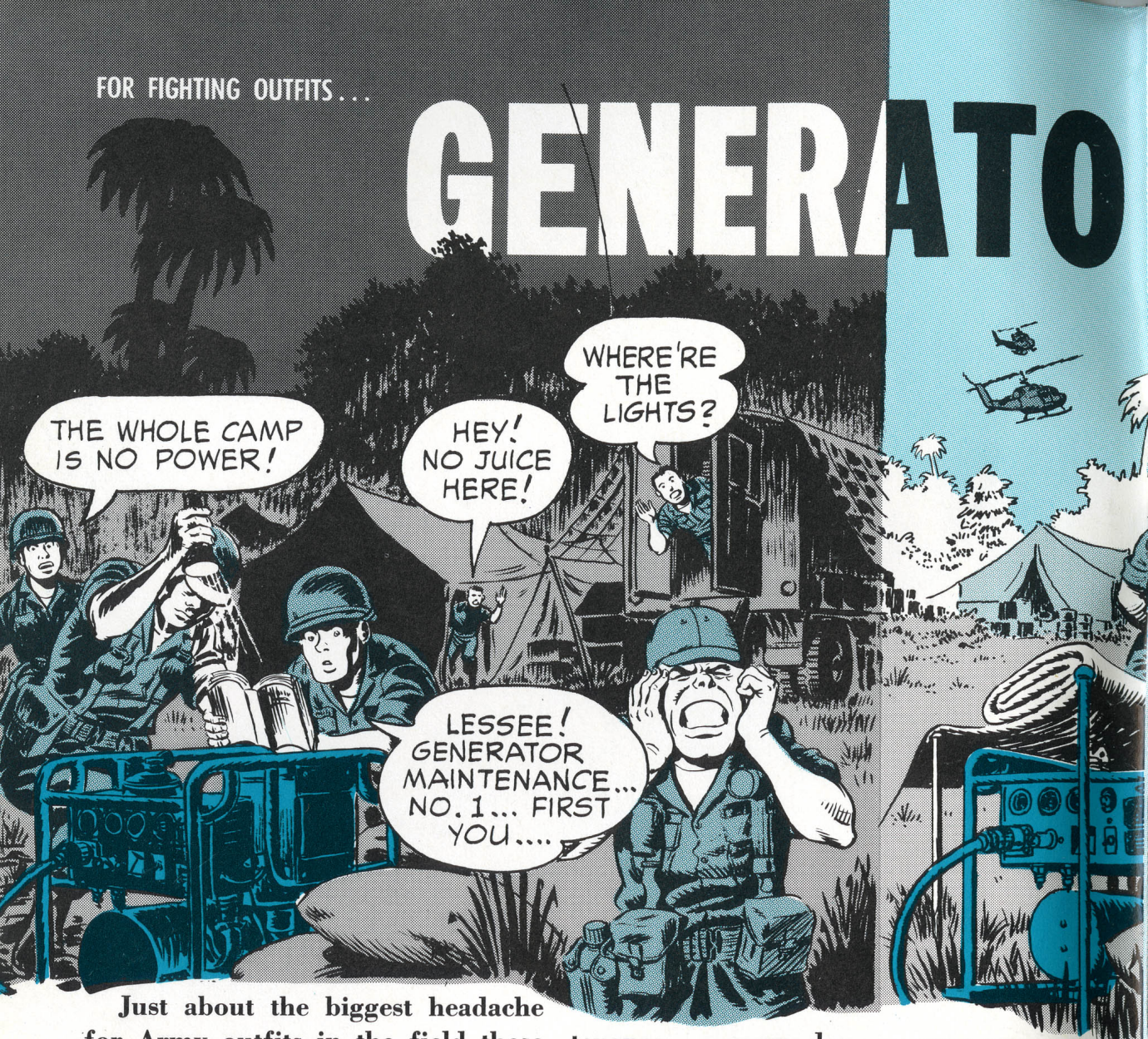
Issue 176
PS
1967 Series
THE PREVENTIVE MAINTENANCE MONTHLY
WELL WADDYA KNOW... IT WAS ONLY THIS LITTLE OL' CONNECTOR ALL THE TIME!!
Will Eisner



Just about the biggest headache for Army outfits in the field these days (other than the enemy kooks out in the bushes shooting at 'em) is power generators . . . mainly because they are started up and forgotten.

Communications, lights and power-operated equipment take a lot of electricity. That's why there are generators in every unit.

And those generators are getting used – around the clock . . . 7 days a week . . . 52 weeks a year in places like Vietnam.

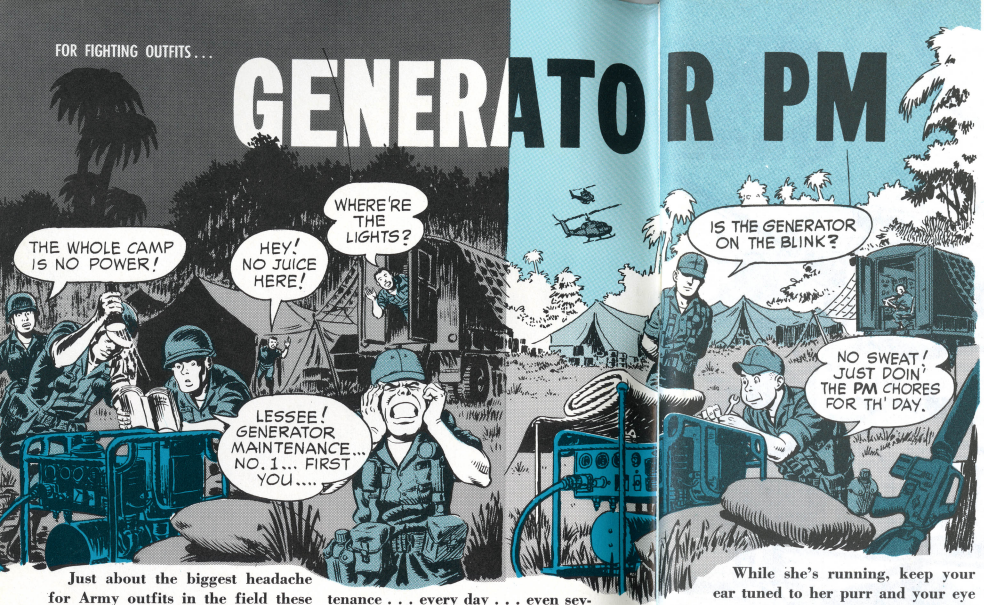
When any equipment is used that much, it's got to have regular maintenance . . . every day . . . even several times a day.

So, if you've got the job of taking care of a generator, you've got a real tough one. You can't fuel-up and wander off to the PX. Nosiree.

A generator calls for a man's full-time attention. Before starting up, see that the oil is OK and that the power lines are hooked up right. Drain the fuel filters and do all the other before-operation checks your TM calls for. Make sure she's level, out of water puddles, and getting plenty of air circulation.

FOR FIGHTING OUTFITS...

GENERATOR PM



Just about the biggest headache for Army outfits in the field these days (other than the enemy kooks out in the bushes shooting at 'em) is power generators . . . mainly because they are started up and forgotten.

Communications, lights and power-operated equipment take a lot of electricity. That's why there are generators in every unit.

And those generators are getting used – around the clock . . . 7 days a week . . . 52 weeks a year in places like Vietnam.

When any equipment is used that much, it's got to have regular maintenance . . . every day . . . even several times a day.

So, if you've got the job of taking care of a generator, you've got a real tough one. You can't fuel-up and wander off to the PX. Nosiree.

A generator calls for a man's full-time attention. Before starting up, see that the oil is OK and that the power lines are hooked up right. Drain the fuel filters and do all the other before-operation checks your TM calls for. Make sure she's level, out of water puddles, and getting plenty of air circulation.

While she's running, keep your ear tuned to her purr and your eye on the load. Your buddy in the tent down the line might hook up some gadget that could break your generator's back.

Check the oil level every 3 or 4 hours of operation . . . more often if the engine's starting to use oil. When your generator is on an around-the-clock operation, try to have another one available to switch off to so you can do maintenance.

Good generator PM is one of the best ways to keep your Old Man happy . . . and your outfit ready to fight.

PS

Published by the Department of the Army for the Information of organizational maintenance and supply personnel. Distribution is made through normal publication channels. Within limits of availability, older issues may be obtained direct from U. S. Army Maintenance Board, Attn.: PS Magazine, Fort Knox, Kentucky 40121.

THE PREVENTIVE MAINTENANCE MONTHLY
Issue No. 176 1967 Series

IN THIS ISSUE

FIREPOWER 2-19
M55 Quad 50's 2-14
Hawk Notes 16-19
M108 SP Howitzer 15

COMMUNICATIONS 20-27
Soggy Radar Sets 20-21
ARC-51BX 22
VRC-12 22
AT-912 Antenna Fix 23
Antenna Care 24
Snug Connections 27
RWI Cable FSN 27
RT 505 25
PRC-6 25
Capacitor Care 26
TK-115 26
AN/TRC-24 27

AIR MOBILITY 37-45
UH-1B, D 37
DA Form 2408-16 38-39
UH-1 40
UH-1C 40-41
Spark Plug Socket 41
Flight Line Safety 45
Battle Damage 42
New Jack Pub 42
CH-47 43
Torquing 44
U-6 44

GROUND MOBILITY 46-52
G744-Series Parts 46-47
M39A2-Series 48
5-Ton Wrecker 48
5-Ton Multifuel 49
Power Cable 49
Hydrostatic Lock 50-52

SUPPLY
Property Book IAR 53-54
PLL Info 55-59
BIIL 60-61
Tachometer 62
Ignition Timing Light 62
Supply 14, 15, 17, 18, 19, 22, 24, 26, 27, 37, 39, 41, 42, 43, 45, 46, 47, 48.
Pioneer Tools 63
M20 BA 63
SB 700-20 64
PLL TM Change 64
New Publications 28

Use of funds for printing of this publication has been approved by Headquarters, Department of the Army, 19 February 1965.

DISTRIBUTION: In accordance with requirements submitted on DA Form 12-4.

PS wants your ideas and contributions, and is glad to answer your questions. Name and address are kept in confidence. Just write to:

Sgt. Half-Mast,
PS Magazine,
Fort Knox, Ky.
40121

R PM

While she's running, keep your ear tuned to her purr and your eye on the load. Your buddy in the tent down the line might hook up some gadget that could break your generator's back.

Check the oil level every 3 or 4 hours of operation . . . more often if the engine's starting to use oil. When your generator is on an around-the-clock operation, try to have another one available to switch off to so you can do maintenance.

Good generator PM is one of the best ways to keep your Old Man happy . . . and your outfit ready to fight.

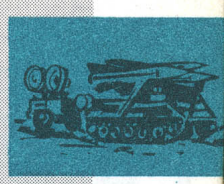
PS

Published by the Department of the Army for the Information of organizational maintenance and supply personnel. Distribution is made through normal publication channels. Within limits of availability, older issues may be obtained direct from U. S. Army Maintenance Board, Attn.: PS Magazine, Fort Knox, Kentucky 40121.

THE **PREVENTIVE MAINTENANCE** MONTHLY

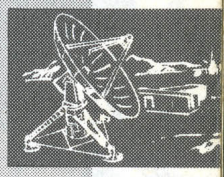
Issue No. 176 1967 Series

IN THIS ISSUE



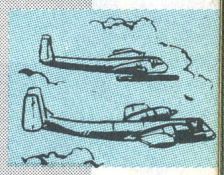
FIREPOWER 2-19

M55 Quad 50's 2-14
M108 SP Howitzer 15
Hawk Notes 16-19



COMMUNICATIONS 20-27

Soggy Radar Sets 20-21
ARC-51BX 22
VRC-12 22
AT-912 Antenna Fix 23
Antenna Care 24
RT 505 25
PRC-6 25
Capacitor Care 26
TK-115 26
AN/TRC-24 27
Snug Connections 27
RWI Cable FSN 27



AIR MOBILITY 37-45

UH-1B, D 37
DA Form 2408-16 38-39
UH-1 40
UH-1C 40-41
Spark Plug Socket 41
Battle Damage 42
New Jack Pub 42
CH-47 43
Torquing 44
U-6 44
Flight Line Safety 45

GROUND MOBILITY 46-52

G744-Series Parts 46-47
M39A2-Series 48
5-Ton Wrecker 48
5-Ton Multifuel 49
Power Cable 49
Hydrostatic Lock 50-52

SUPPLY

Property Book IAR 53-54
PLL Info 55-59
BIIL 60-61
Tachometer 62
Ignition Timing Light 62
Pioneer Tools 63
M20 BA 63
SB 700-20 64
PLL TM Change 64
New Publications 28
Supply 14, 15, 17, 18, 19, 22, 24, 26, 27, 37, 39, 41, 42, 43, 45, 46, 47, 49.

Use of funds for printing of this publication has been approved by Headquarters, Department of the Army, 19 February 1965.

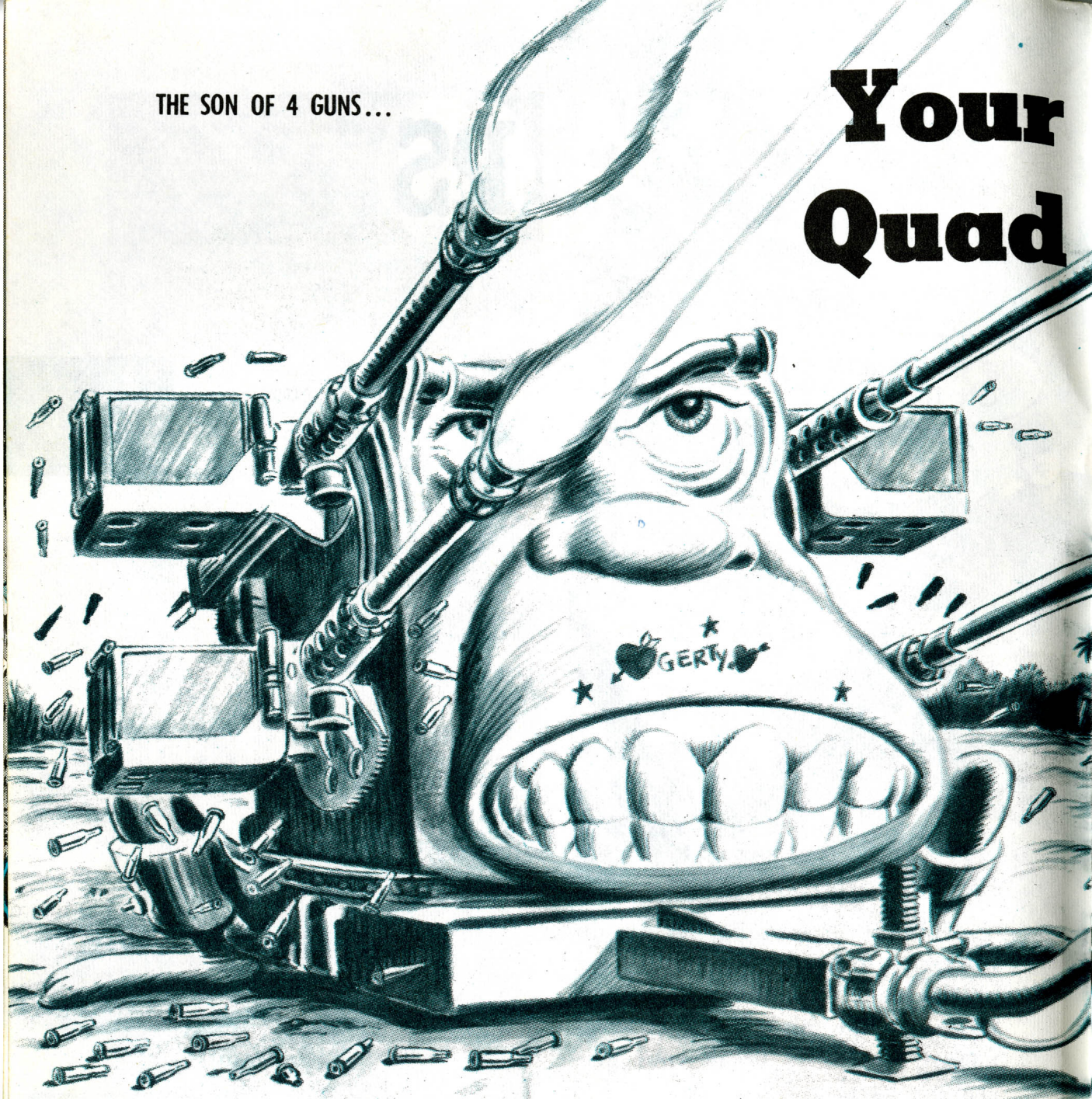
DISTRIBUTION: In accordance with requirements submitted on DA Form 12-4.

PS wants your ideas and contributions, and is glad to answer your questions. Name and address are kept in confidence. Just write to:

Sgt. Half-Mast,
PS Magazine,
Fort Knox, Ky.
40121

THE SON OF 4 GUNS...

Your Quad



The weapons that are too tough to die . . . that's what your M55 quad 50's are.

Seems like only yesterday they were burying the 4 M2 .50-cal machine guns . . . the M45C mount . . . the M20 trailer . . . and the generator set—all of which make up the M55.

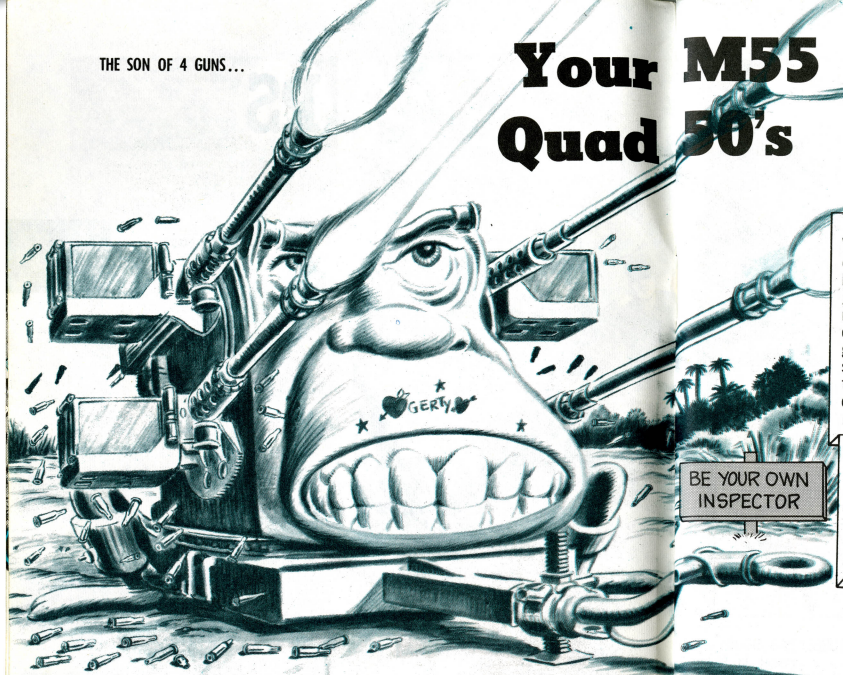
But the M55 is back on the scene . . . and that means you know what. Right—maintenance.

And to help you, here's sort of a travelogue that takes you up, down, around and through the M55 so that you know what trouble spots to look for. The ones that need fixing the day after yesterday are set in blue type

"Bottom's up," as they say . . . so let's start with the . . .

THE SON OF 4 GUNS...

Your M55 Quad 50's



The weapons that are too tough to die . . . that's what your M55 quad 50's are.

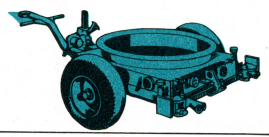
Seems like only yesterday they were burying the 4 M2 .50-cal machine guns . . . the M45C mount . . . the M20 trailer . . . and the generator set—all of which make up the M55.

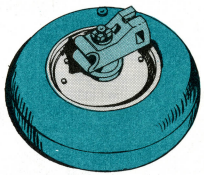
But the M55 is back on the scene . . . and that means you know what. Right—maintenance.

And to help you, here's sort of a travelogue that takes you up, down, around and through the M55 so that you know what trouble spots to look for. The ones that need fixing the day after yesterday are set in blue type

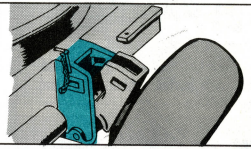
"Bottom's up," as they say . . . so let's start with the . . .

M20 Trailer

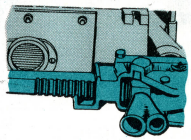




WHEELS — Tires cut, worn through cords, wrong pressure (you want 50 lbs); valves bent; valve caps missing; grease leaking; wheels bind; lock nut **loose, missing;** cotter key busted, missing; bracket cracked, won't go into bracket support on trailer; section of bracket that rides on trailer pin dry (needs a light coat of oil); wheel screws and nuts **loose, missing;** wheel washers **missing.**



WHEEL BRACKET SUPPORT — **Cracked,** bent; wedge lock pin **busted, missing;** chain broken, missing; wheel bracket wedge and chain busted, **missing.**



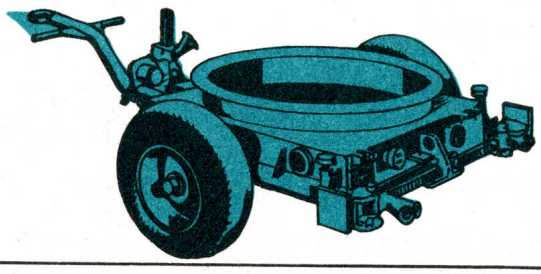
JACKS — Selector **doesn't work** (won't let jack raise or lower); spring weak, **broken** (when it's busted, selector is out of action); ratchet teeth **cracked, busted** off; lock pin **broken,** missing; chain busted, **missing;** mounting cap screws **missing,** lock washers missing; pads (feet) cracked, bent.

JACK HANDLES — Bent, battered **(enough to keep them from going into jacks or drawbar tie rods).**

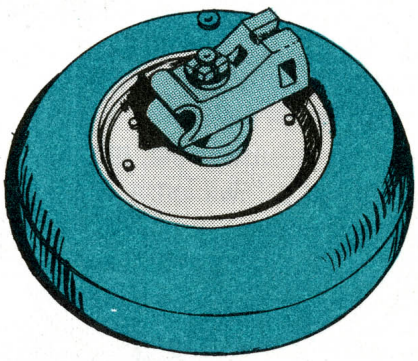
MORE

M55 50's

M20 Trailer

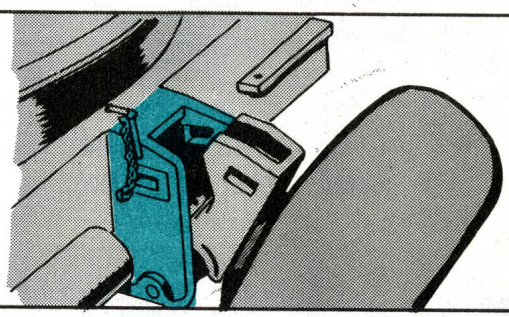


WHEELS — Tires cut, worn through cords, wrong pressure (you want 50 lbs); valves bent; valve caps missing; grease leaking; wheels bind; lock nut **loose, missing;** cotter key busted, missing; bracket cracked, won't go into bracket support on trailer; section of bracket that rides on trailer pin dry (needs a light coat of oil); wheel screws and nuts **loose, missing;** wheel washers **missing.**

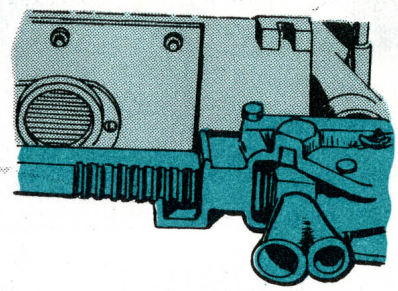


BE YOUR OWN INSPECTOR

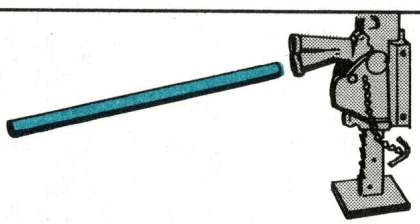
WHEEL BRACKET SUPPORT — **Cracked,** bent; wedge lock pin **busted, missing;** chain broken, missing; wheel bracket wedge and chain busted, **missing.**



JACKS — Selector **doesn't work** (won't let jack raise or lower); spring weak, **broken** (when it's busted, selector is out of action); ratchet teeth **cracked, busted** off; lock pin **broken,** missing; chain busted, **missing;** mounting cap screws **missing,** lock washers missing; pads (feet) cracked, bent.

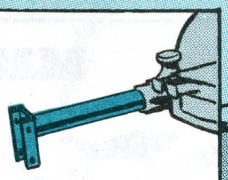


JACK HANDLES — Bent, battered **(enough to keep them from going into jacks or drawbar tie rods).**

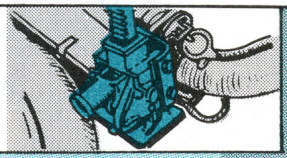


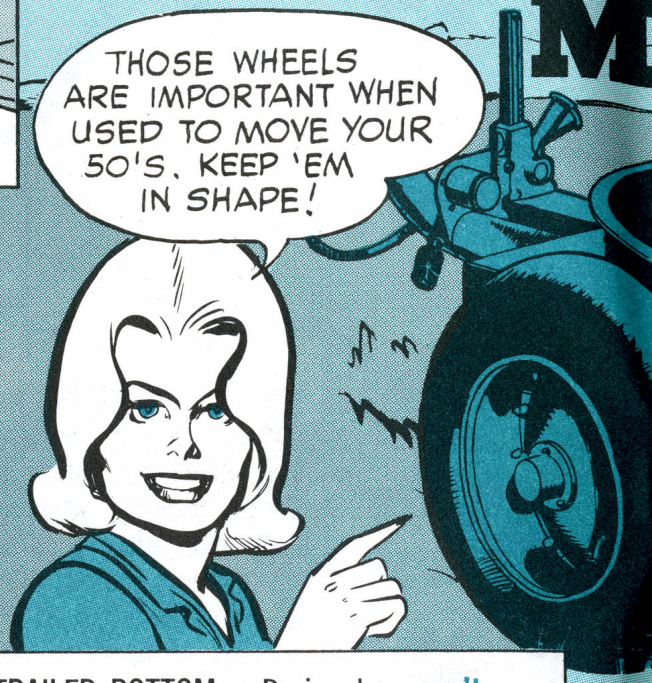
PS MORE

REAR JACK MOUNTS — Dented, cracked, don't slide in and out of bracket freely, **missing.**

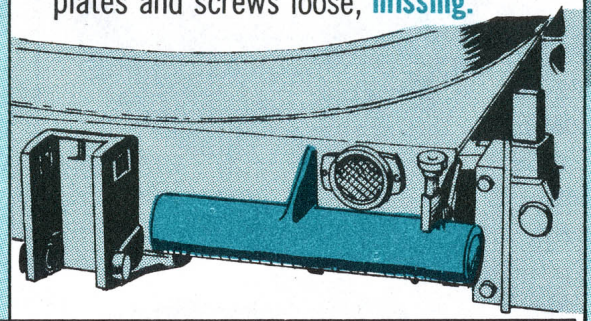


FRONT JACK MOUNT — **Cracked.**

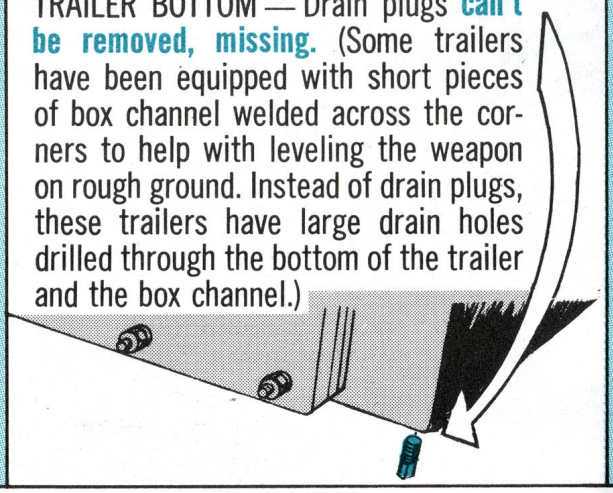




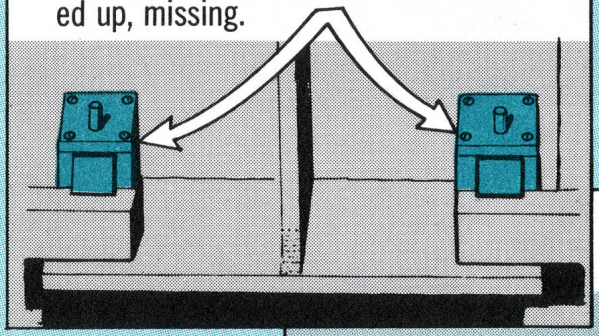
REAR JACK BRACKETS — Dented, **cracked,** have water inside, drain plug **can't be removed,** missing; **lock doesn't hold,** binds, doesn't snap into place when knob is released, **pin missing;** cover plates and screws loose, **missing.**



TRAILER BOTTOM — Drain plugs **can't be removed, missing.** (Some trailers have been equipped with short pieces of box channel welded across the corners to help with leveling the weapon on rough ground. Instead of drain plugs, these trailers have large drain holes drilled through the bottom of the trailer and the box channel.)



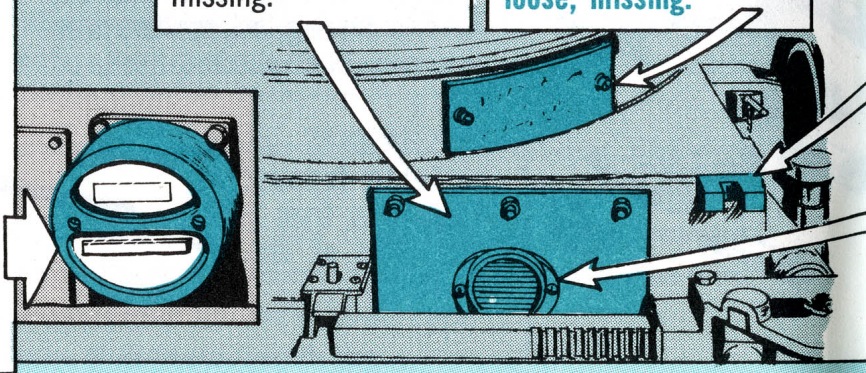
REAR JACK LATCHES — Bind, **don't hold;** spring weak, **busted;** rubber pads chewed up, missing.



REAR ACCESS DOOR — Not tight; nuts loose, **missing;** gasket shot, missing.

TURRET BASE DOORS — Loose; **gasket in bad shape, missing;** nuts **loose, missing.**

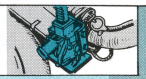
STOPLIGHTS & TAILLIGHTS — Not used nowadays, but who knows about tomorrow night. So keep an eye peeled for busted lenses, missing lamps and entire assembly loose on trailer — just in case you want to hook up to a ¼-ton utility truck.



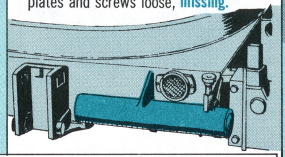
M 20 Trailer

REAR JACK MOUNTS — Dented, cracked, don't slide in and out of bracket freely, **missing.**

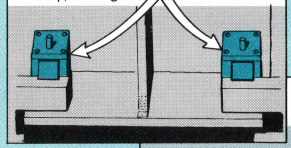
FRONT JACK MOUNT — **Cracked.**

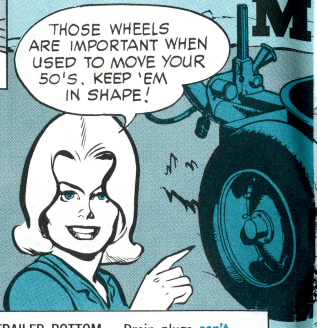


REAR JACK BRACKETS — Dented, **cracked,** have water inside, drain plug **can't be removed,** missing; **lock doesn't hold,** binds, doesn't snap into place when knob is released, **pin missing;** cover plates and screws loose, **missing.**

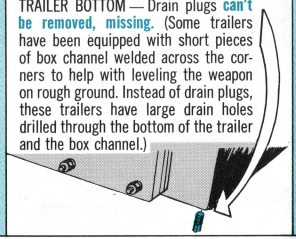


REAR JACK LATCHES — Bind, **don't hold;** spring weak, **busted;** rubber pads chewed up, missing.





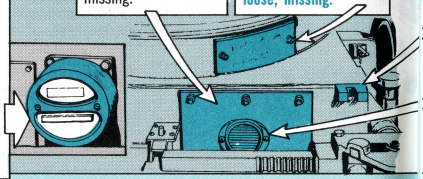
TRAILER BOTTOM — Drain plugs **can't be removed, missing.** (Some trailers have been equipped with short pieces of box channel welded across the corners to help with leveling the weapon on rough ground. Instead of drain plugs, these trailers have large drain holes drilled through the bottom of the trailer and the box channel.)



REAR ACCESS DOOR — Not tight; nuts loose, **missing;** gasket shot, missing.

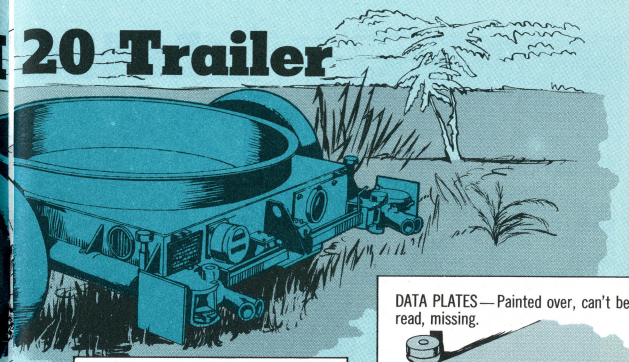
TURRET BASE DOORS — Loose; **gasket in bad shape, missing;** nuts **loose, missing.**

STOPLIGHTS & TAILLIGHTS — Not used nowadays, but who knows about tomorrow night. So keep an eye peeled for busted lenses, missing lamps and entire assembly loose on trailer — just in case you want to hook up to a ¼-ton utility truck.

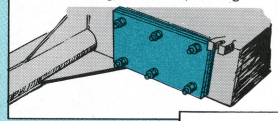


TRAILER HOLDDOWNS — (One in each corner) **Bent, busted.**

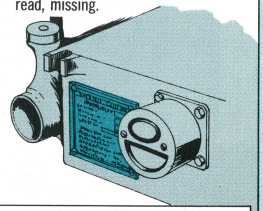
REFLECTORS — Busted, loose, missing; screws loose, missing.

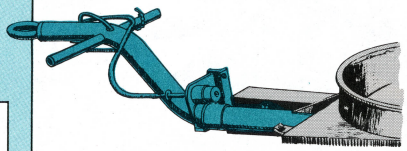


FRONT ACCESS DOOR — Loose, gasket shot, missing; nuts loose, missing.



DATA PLATES — Painted over, can't be read, missing.

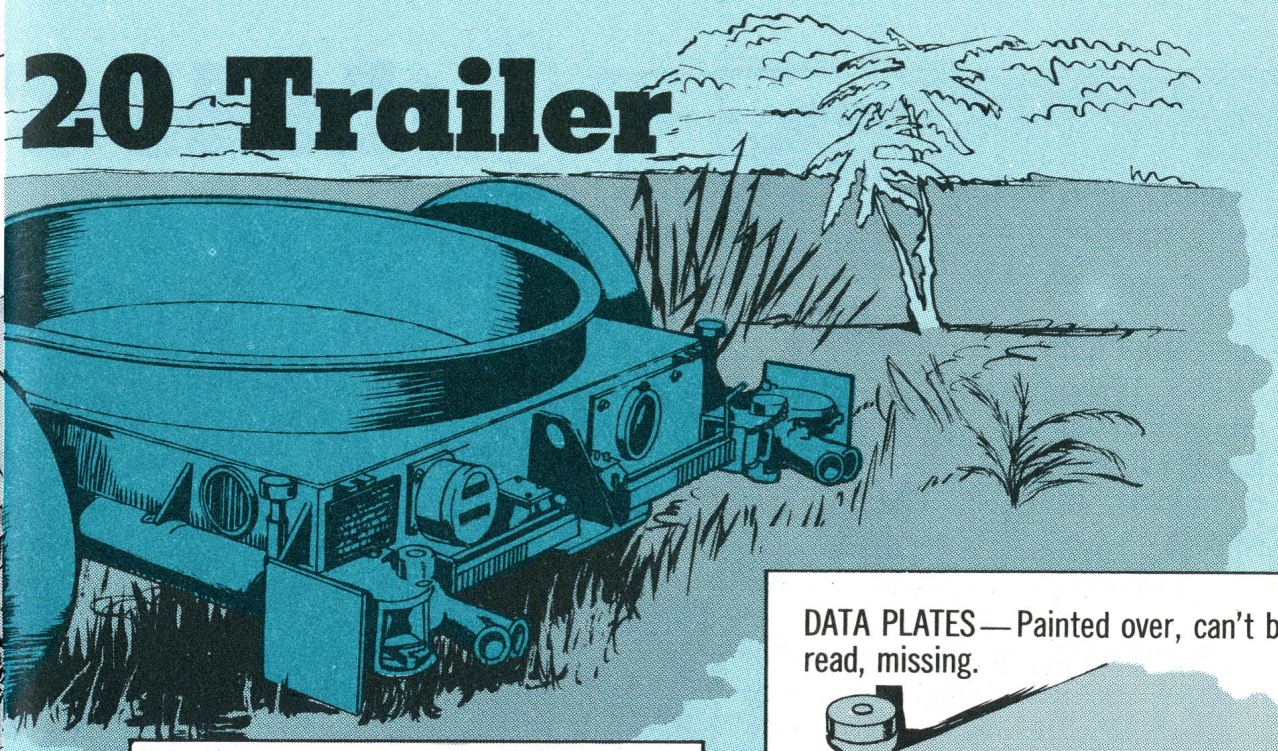




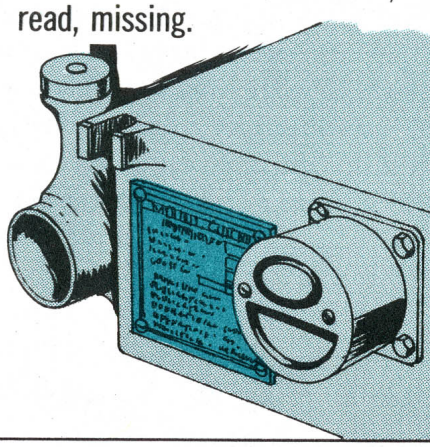
DRAWBAR — Screws and nuts **loose, missing;** tie rod **bent, dented (enough so that jack handles can't be put in);** locking pins and chains **busted, missing;** main lunette and auxiliary lunette **cracked;** tool box latches don't hold, box **missing;** tow cable, cable connector and dummy receptacle battered; (keep the cable in the dummy receptacle).

MORE

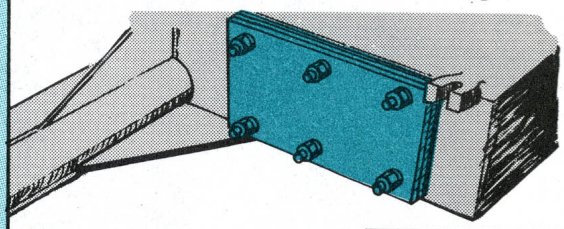
20 Trailer

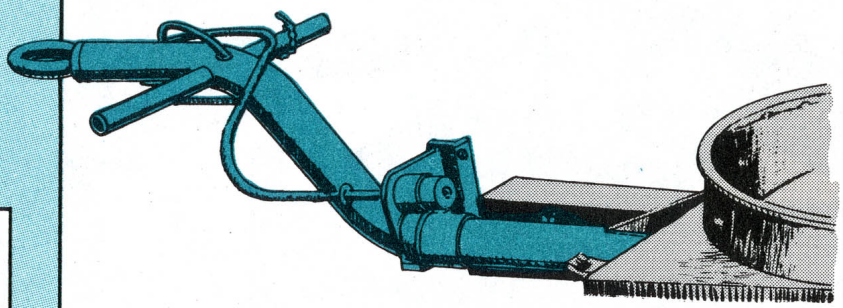


DATA PLATES — Painted over, can't be read, missing.



FRONT ACCESS DOOR — Loose, gasket shot, missing; nuts loose, missing.





DRAWBAR — Screws and nuts **loose, missing;** tie rod **bent, dented (enough so that jack handles can't be put in);** locking pins and chains **busted, missing;** main lunette and auxiliary lunette **cracked;** tool box latches don't hold, box **missing;** tow cable, cable connector and dummy receptacle battered; (keep the cable in the dummy receptacle).

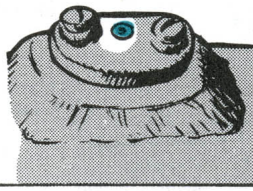
TRAILER HOLDDOWNS — (One in each corner) **Bent, busted.**

REFLECTORS — Busted, loose, missing; screws loose, missing.

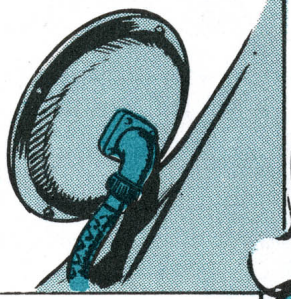
P.S MORE

M45C

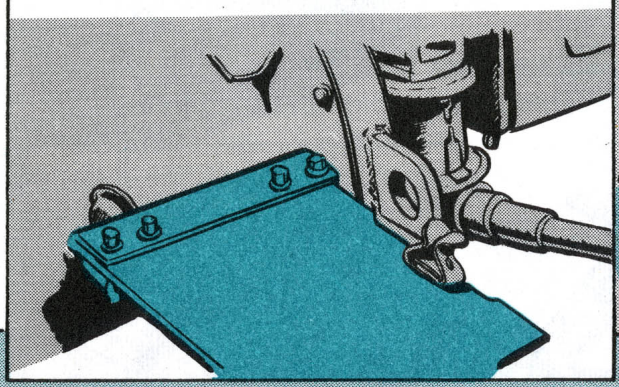
TRUNNION OILER PLUGS — Ball bearing **can't be moved** for oiling, **missing.**



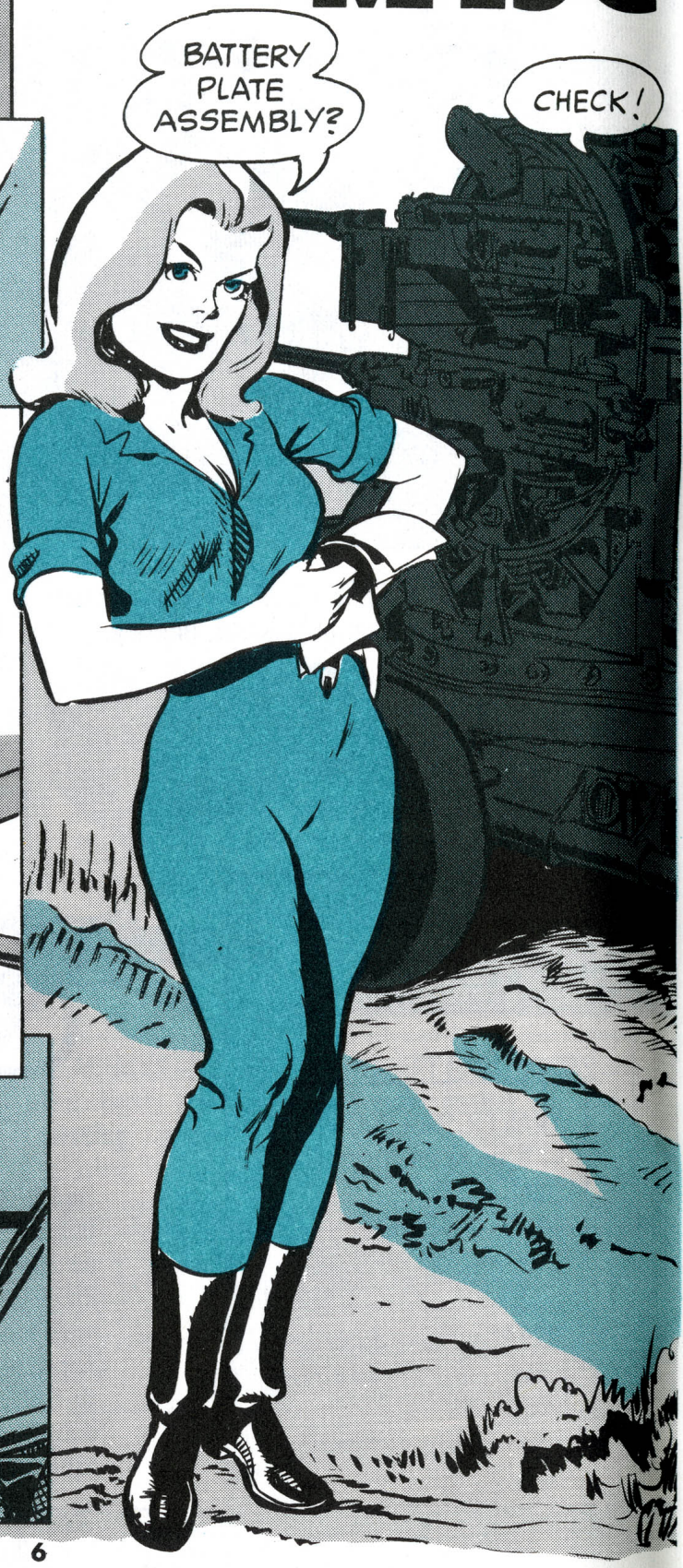
TRUNNION TERMINAL BLOCKS — Power cable insulation **busted;** wires **loose, not connected;** cover loose, **off;** shell loose.



SHIELD ASSEMBLY — Mounting screws and nuts for doors **loose, missing;** clips **don't hold, busted, missing.** (When you're not using your quad .50's, keep the doors down. If you leave them up, but not snapped in place, and then elevate the mount . . . the doors can put a mean bend in the sight brace.)

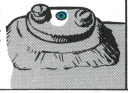


DIFFERENTIAL SCREWS — **Loose, missing.**

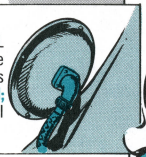


M45C Mount

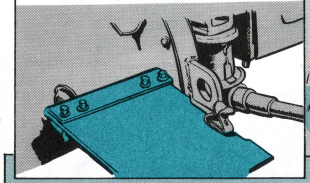
TRUNNION OILER PLUGS — Ball bearing **can't be moved** for oiling, **missing.**



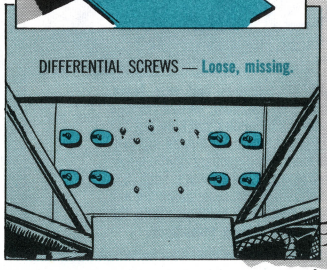
TRUNNION TERMINAL BLOCKS — Power cable insulation **busted;** wires **loose, not connected;** cover loose, **off;** shell loose.

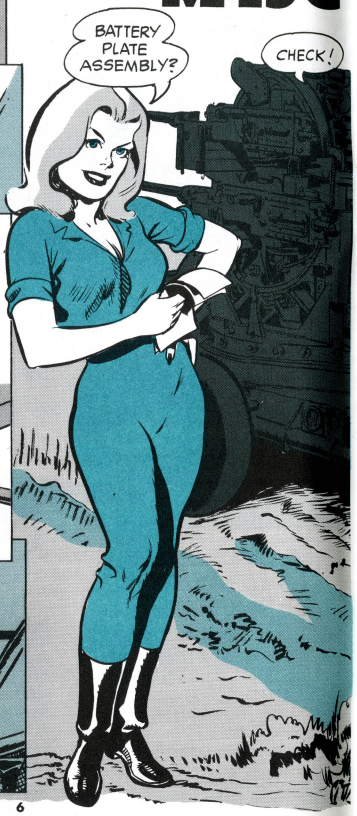


SHIELD ASSEMBLY — Mounting screws and nuts for doors **loose, missing;** clips **don't hold, busted, missing.** (When you're not using your quad .50's, keep the doors down. If you leave them up, but not snapped in place, and then elevate the mount . . . the doors can put a mean bend in the sight brace.)

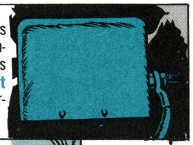


DIFFERENTIAL SCREWS — **Loose, missing.**

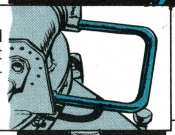




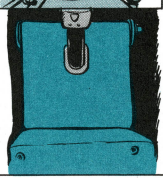
JUNCTION BOX — Nuts **loose, missing;** washers missing; cables **loose on terminals, not connected;** box battered; cover **missing.**



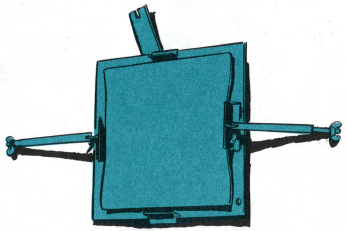
FOOT REST — Twisted out of shape; bracket pins and chains busted, missing.



SEAT — Ripped, **pulled out of rollers;** rollers busted; adjusting knob **won't turn, doesn't hold;** adjusting shaft **bent so that it doesn't go in adjusting holes, busted;** spring weak, **broken.**

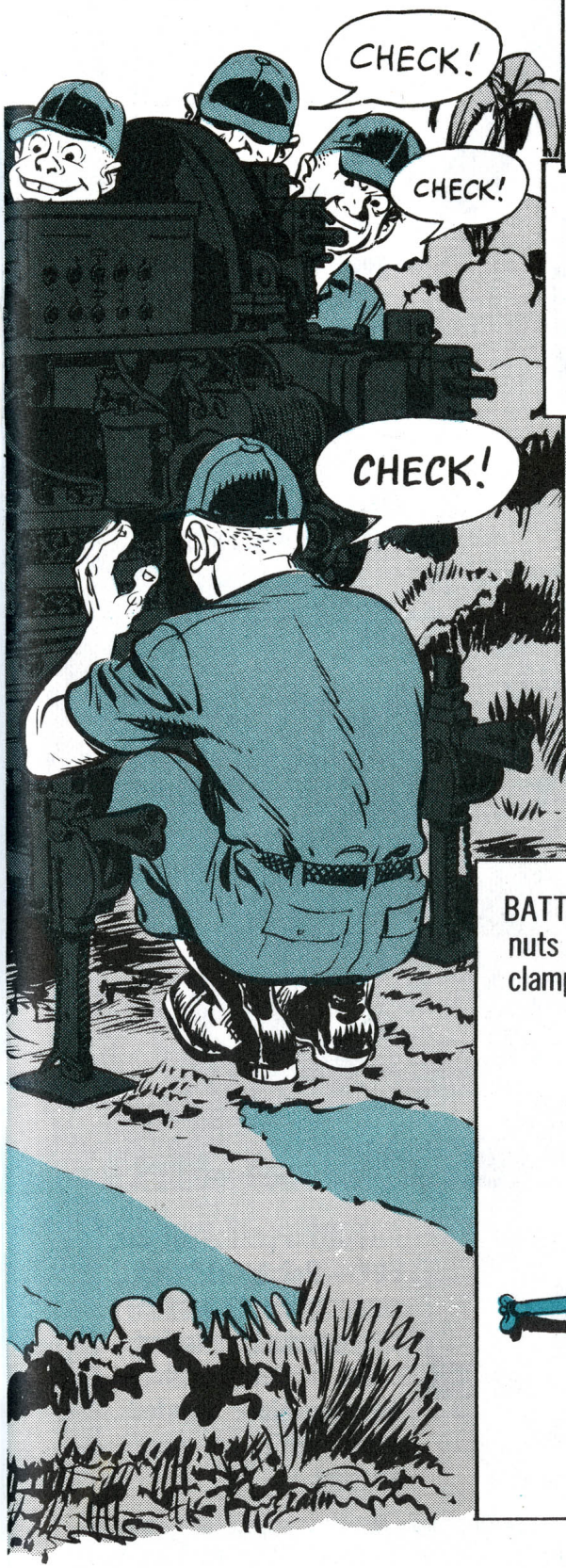


BATTERY PLATE ASSEMBLY — Latches bent, **broken;** nuts **missing;** pins and cotter keys broken, **missing;** clamp bent, **busted,** rubber pad ripped, missing.

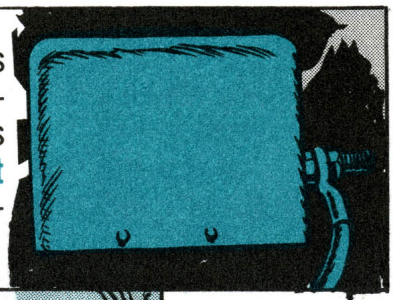


MORE

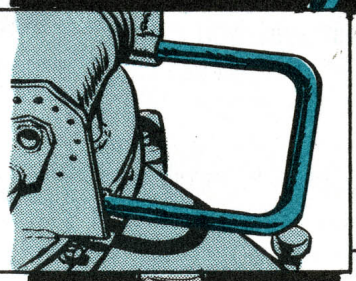
Mount



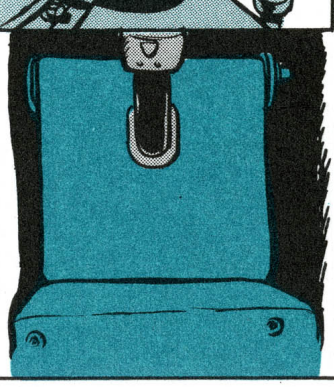
JUNCTION BOX—Nuts **loose, missing;** washers missing; cables **loose on terminals, not connected;** box battered; cover **missing.**



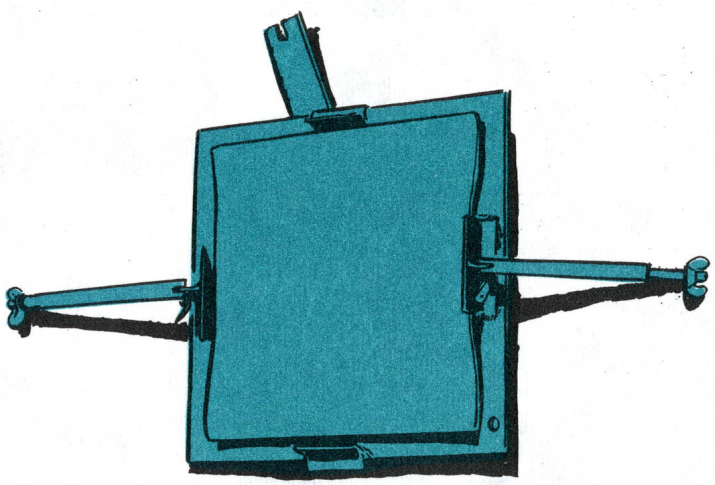
FOOT REST—Twisted out of shape; bracket pins and chains busted, missing.



SEAT—Ripped, **pulled out of rollers;** rollers busted; adjusting knob **won't turn, doesn't hold;** adjusting shaft **bent so that it doesn't go in adjusting holes, busted;** spring weak, **broken.**



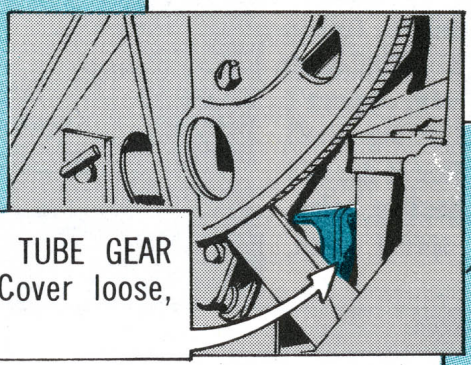
BATTERY PLATE ASSEMBLY—Latches bent, **broken;** nuts **missing;** pins and cotter keys broken, **missing;** clamp bent, **busted,** rubber pad ripped, missing.



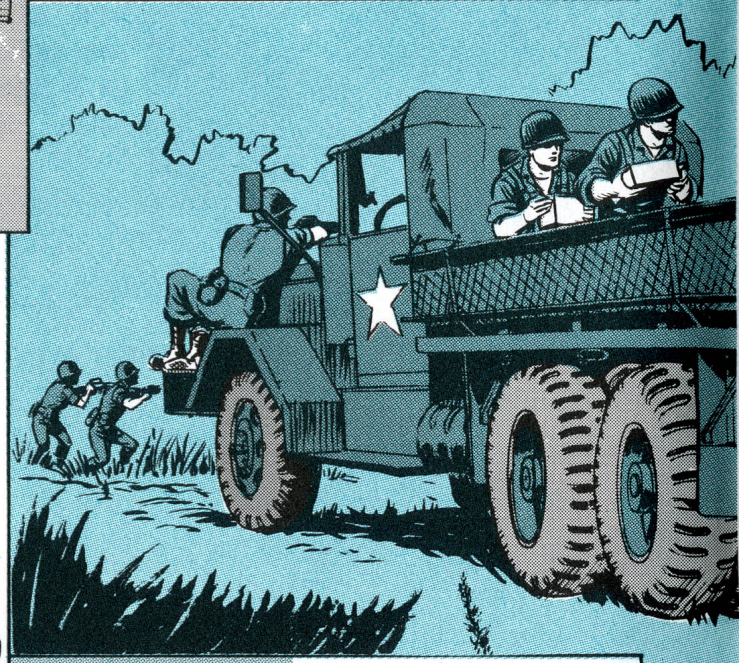
PS MORE

CONTROL HANDLES — Trigger switches bind, move sideways, **busted;** grips cracked; control linkage cotter keys broken, **missing;** control linkage **out of adjustment** (you can tell because you get creep in the mount or the control handles don't return to center position after you release them).

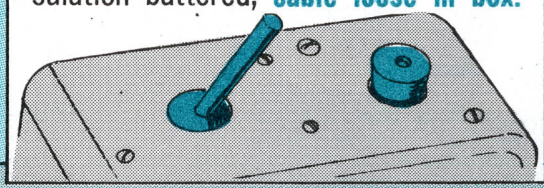
PILOT LIGHT BOX — Dented, cracked; power cable **loose in box,** insulation torn; firing circuit warning lamp **doesn't light** when firing circuit switch is turned on, lamp **burned out, missing;** overheat lamp **goes on even though power drive unit's not overheated,** lamp **burned out, missing** (you can make a quick check of the lamps by switching them); warning on box **can't be read, painted over, missing.**



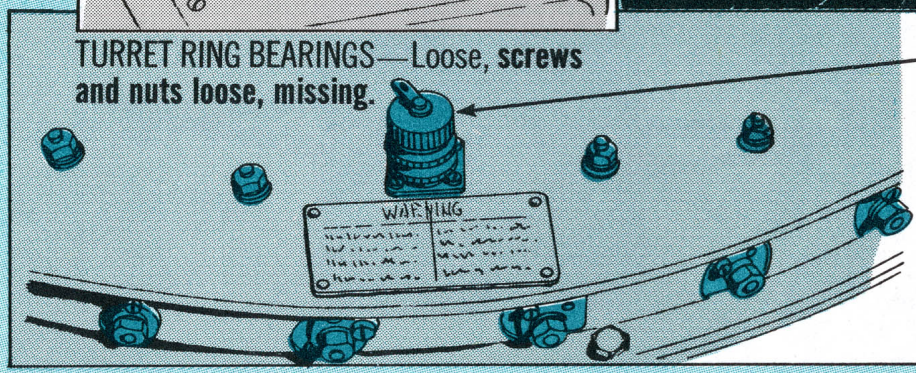
TORQUE TUBE GEAR BOX — Cover loose, **missing.**



TURRET DRIVE SWITCH ASSEMBLY — Turret drive and sight interlock toggle switches **can't be moved;** circuit breaker switch **doesn't work;** box cover and mounting screws loose, **missing;** box and cover **cracked;** electrical cable insulation battered; **cable loose in box.**

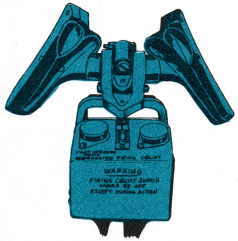


TURRET RING BEARINGS — Loose, **screws and nuts loose, missing.**

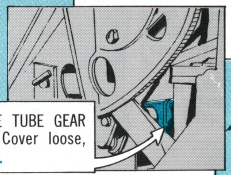


CUTOUT PLUG ASSEMBLY — **Pointer missing;** contacts bent, **broken;** cap **cracked, missing;** chain busted, missing; **warning plate painted over, can't be read, missing.**

CONTROL HANDLES — Trigger switches bind, move sideways, **busted;** grips cracked; control linkage cotter keys broken, **missing;** control linkage **out of adjustment** (you can tell because you get creep in the mount or the control handles don't return to center position after you release them).

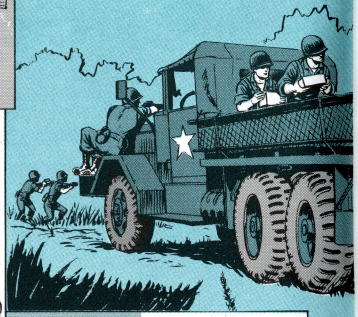


PILOT LIGHT BOX — Dented, cracked; power cable **loose in box,** insulation torn; firing circuit warning lamp **doesn't light** when firing circuit switch is turned on, lamp **burned out, missing;** overheat lamp **goes on even though power drive unit's not overheated,** lamp **burned out, missing** (you can make a quick check of the lamps by switching them); warning on box **can't be read, painted over, missing.**



TORQUE TUBE GEAR BOX — Cover loose, **missing.**

TURRET DRIVE SWITCH ASSEMBLY — Turret drive and sight interlock toggle switches **can't be moved;** circuit breaker switch **doesn't work;** box cover and mounting screws loose, **missing;** box and cover **cracked;** electrical cable insulation battered; **cable loose in box.**

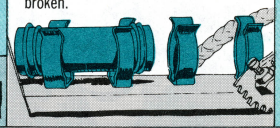


TURRET RING BEARINGS — Loose, **screws and nuts loose, missing.**

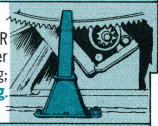
CUTOUT PLUG ASSEMBLY — **Pointer missing;** contacts bent, **broken;** cap **cracked, missing;** chain busted, missing; **warning plate painted over, can't be read, missing.**

M45C Mount

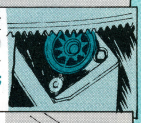
SPARE LAMP CONTAINER — **Missing;** tops missing; retaining clips don't hold, broken.



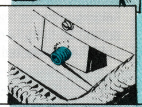
ELEVATION STOP LEVER — **Bent, broken;** rubber boot ripped, missing; screws **loose, missing.**



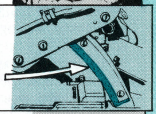
TUBE TORQUE DRIVE SHAFT — Gear teeth **don't mesh** with sector, burred, **broken;** gear guard missing.



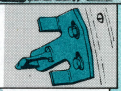
TRUNNION PARALLELISM ALINEMENT SETSCREWS — **Separated from weld, missing.**

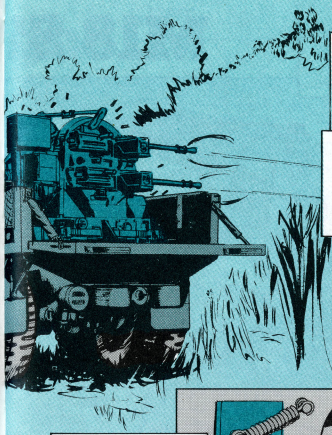


TRUNNION FELT SEAL — Battered, dry (it needs oil, as your LO says).

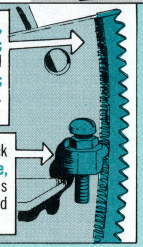


BRACKETS FOR ARMOR SHIELDS — Cracked, **missing.**

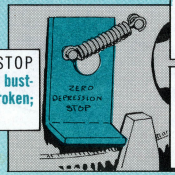




SECTOR — **Cracked,** teeth burred, **busted;** mounting bolts and nuts **loose; missing;** cotter keys broken, **missing.**



DEPRESSION STOP LEVER — **Twisted, busted;** spring weak, **broken;** pins **busted.**

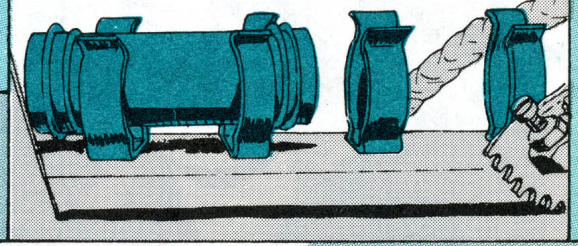


LIMIT STOPS — Lock nut and screw **loose, missing;** nut that's supposed to be welded to sector **busted** off.

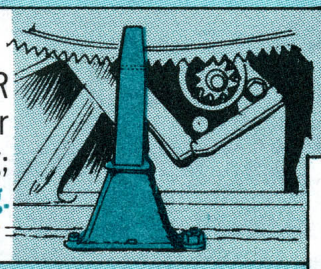
MORE

M45C Mount

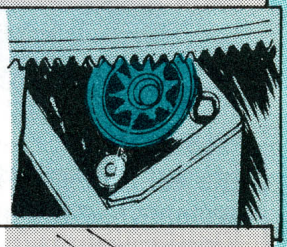
SPARE LAMP CONTAINER — **Missing;** tops missing; retaining clips don't hold, broken.



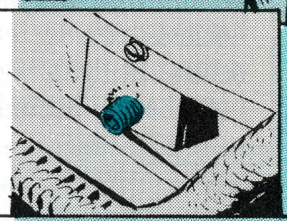
ELEVATION STOP LEVER — **Bent, broken;** rubber boot ripped, missing; screws **loose, missing.**



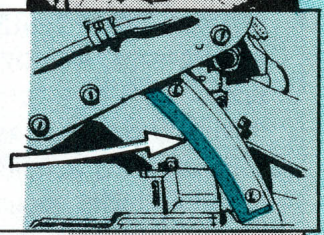
TUBE TORQUE DRIVE SHAFT — Gear teeth **don't mesh** with sector, burred, **broken;** gear guard missing.



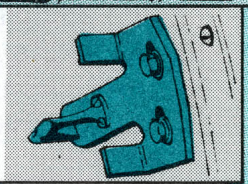
TRUNNION PARALLELISM ALINEMENT SETSCREWS — **Separated from weld, missing.**

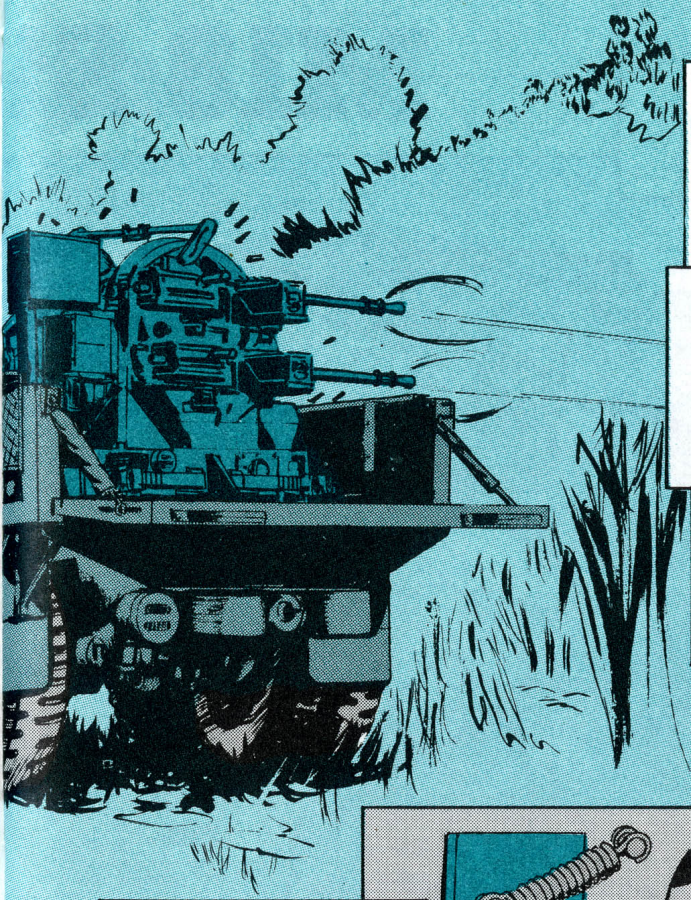


TRUNNION FELT SEAL — Battered, dry (it needs oil, as your LO says).

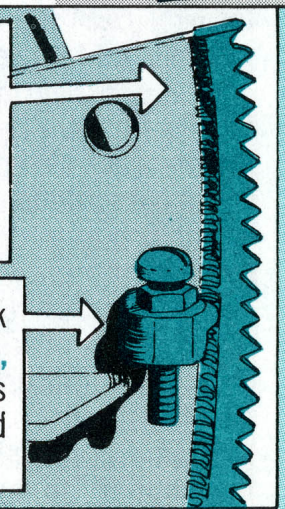


BRACKETS FOR ARMOR SHIELDS — Cracked, **missing.**

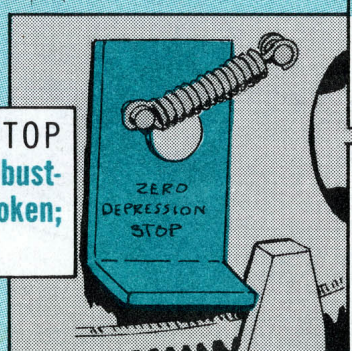




SECTOR — **Cracked,** teeth burred, **busted;** mounting bolts and nuts **loose; missing;** cotter keys broken, **missing.**

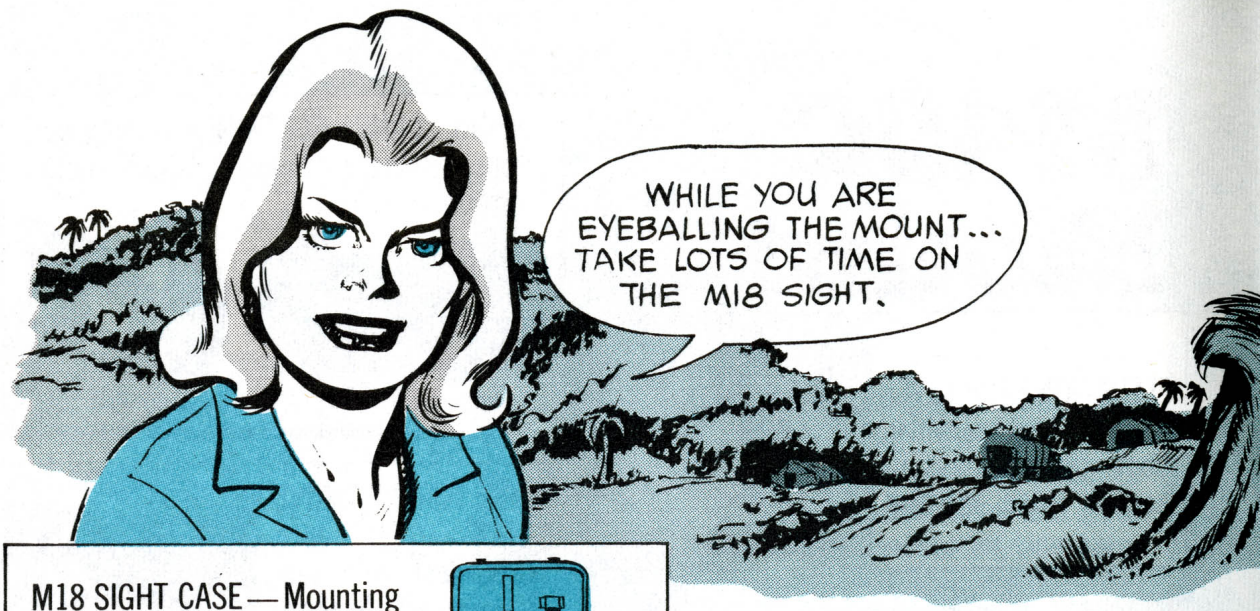


DEPRESSION STOP LEVER — **Twisted, busted;** spring weak, **broken;** pins **busted.**



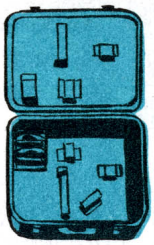
LIMIT STOPS — Lock nut and screw **loose, missing;** nut that's supposed to be welded to sector **busted** off.

PS MORE

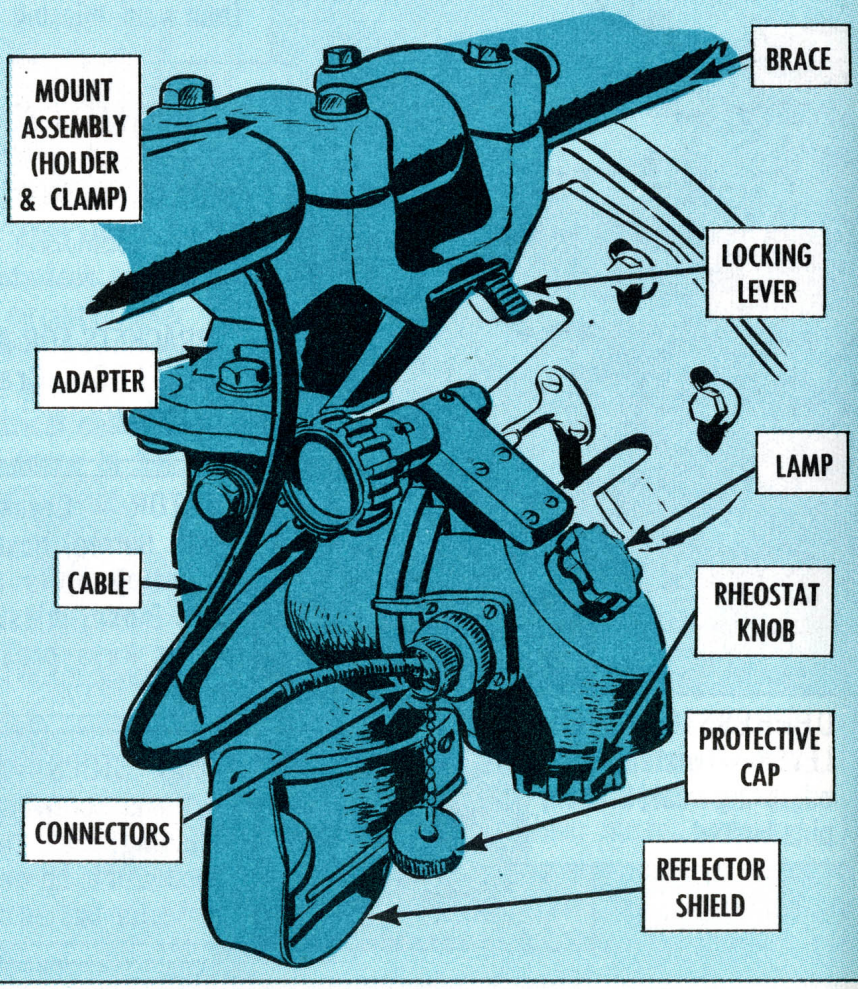


M18 Si

M18 SIGHT CASE — Mounting bracket cork gaskets missing; protective cloth in reflector holders missing; case cover doesn't fit tight; latches don't hold; handle busted.



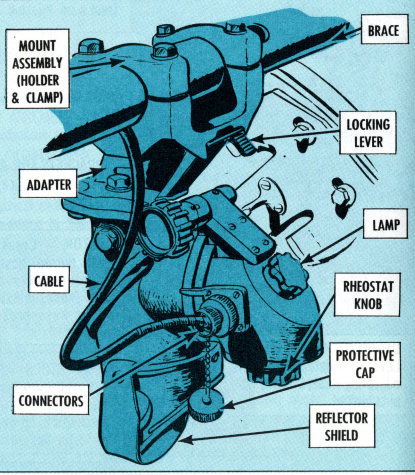
M18 SIGHT — Housing cracked, sight **spotted with grease,** oil; sight binds, **can't be pivoted;** mount assembly **loose, cracked;** slots in holder **painted;** holder mounted **backwards** (if it is, the locking lever will hit the upper housing lock); locking lever binds, **broken;** lenses and reflector **dirty** (clean 'em the way your TM tells you), **cracked, missing** (protect the lenses by keeping the sight closed if you're not going to use it right away and stowed if the sight's going to be out of action for a spell); rheostat knob binds, can't be adjusted for the light you want; lamp **burned out, missing;** upper housing



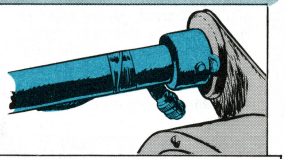
M18 Sight

M18 SIGHT CASE — Mounting bracket cork gaskets missing; protective cloth in reflector holders missing; case cover doesn't fit tight; latches don't hold; handle busted.

M18 SIGHT — Housing cracked, sight **spotted with grease,** oil; sight binds, **can't be pivoted;** mount assembly **loose, cracked;** slots in holder **painted;** holder mounted **backwards** (if it is, the locking lever will hit the upper housing lock); locking lever binds, **broken;** lenses and reflector **dirty** (clean 'em the way your TM tells you), **cracked, missing** (protect the lenses by keeping the sight closed if you're not going to use it right away and stowed if the sight's going to be out of action for a spell); rheostat knob binds, can't be adjusted for the light you want; lamp **burned out, missing;** upper housing lock lugs **cracked,** lock doesn't **hold,** spring weak, **busted;** adapter **cracked, painted** (part that goes into holder wants to be free of paint); light cable insulation cracked, cable **busted,** connectors battered (go easy when you have the sight end of the cable in your hand . . . too much pull and the cable will come out of the brace); light plug dirty; insulation ripped; receptacle dirty (where plug contacts mate), contacts corroded, bent, **busted;** protective cap dirty on inside, **missing;** cap chain busted, missing; reflector shield **bent out of shape, missing.**

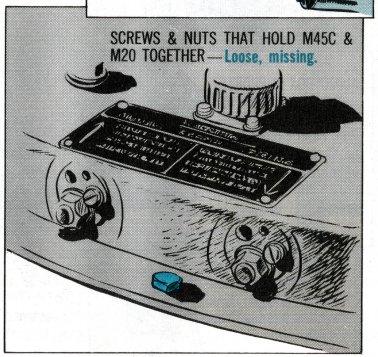


SIGHT SUPPORT GROUP — Brace **bent, loose;** socket pins **missing;** plates **loose;** ground sight cable **broken,** loose, **missing;** grommets loose, missing.



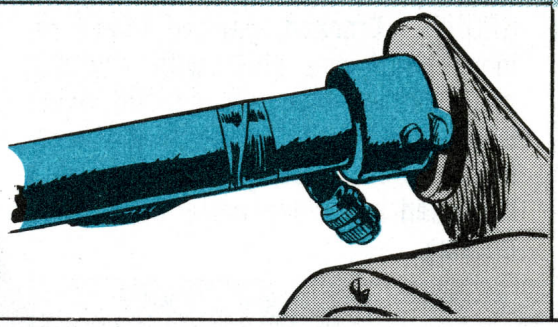
POWER DRIVE GROUP — Oil leaks; splined shafts burred, **busted;** wiring frayed; units **loose on bed plate;** pulleys **loose,** burred; drive belts oil-soaked, **cracked,** frayed, **busted, out of adjustment** (you don't want more than ½-in deflection); drain pipe **crimped, busted, missing.**

SCREWS & NUTS THAT HOLD M45C & M20 TOGETHER — **Loose, missing.**



MORE

SIGHT SUPPORT GROUP—Brace **bent, loose;** socket pins **missing;** plates **loose;** ground sight cable **broken,** loose, **missing;** grommets loose, missing.

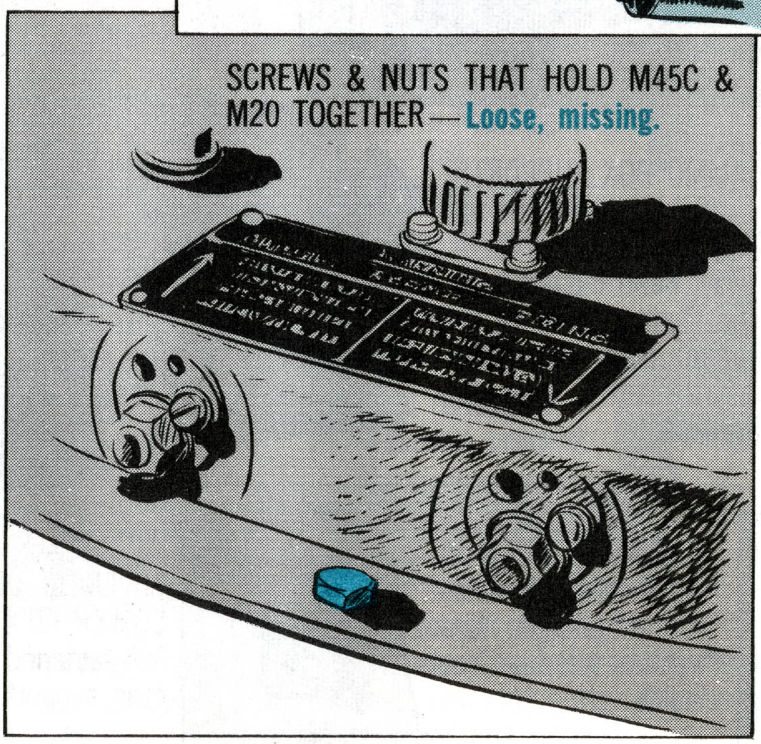


ight

lock lugs **cracked,** lock doesn't **hold,** spring weak, **busted;** adapter **cracked, painted** (part that goes into holder wants to be free of paint); light cable insulation cracked, cable **busted,** connectors battered (go easy when you have the sight end of the cable in your hand . . . too much pull and the cable will come out of the brace); light plug dirty; insulation ripped; receptacle dirty (where plug contacts mate), contacts corroded, bent, **busted;** protective cap dirty on inside, **missing;** cap chain busted, missing; reflector shield **bent out of shape, missing.**

POWER DRIVE GROUP—Oil leaks; splined shafts burred, **busted;** wiring frayed; units **loose on bed plate;** pulleys **loose,** burred; drive belts oil-soaked, **cracked,** frayed, **busted, out of adjustment** (you don't want more than ½-in deflection); drain pipe **crimped, busted, missing.**

SCREWS & NUTS THAT HOLD M45C & M20 TOGETHER—**Loose, missing.**

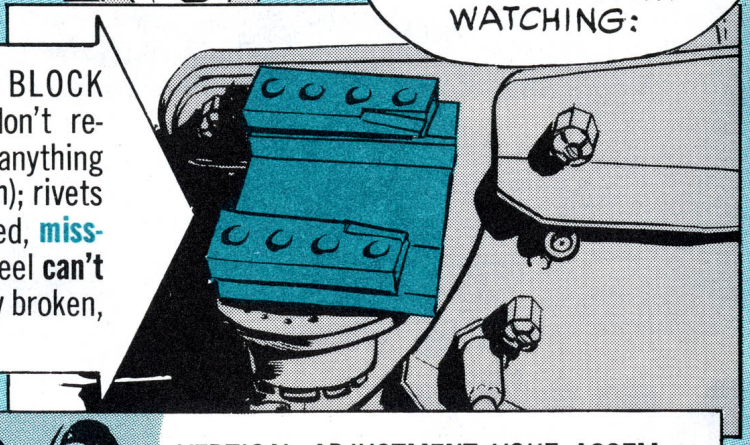


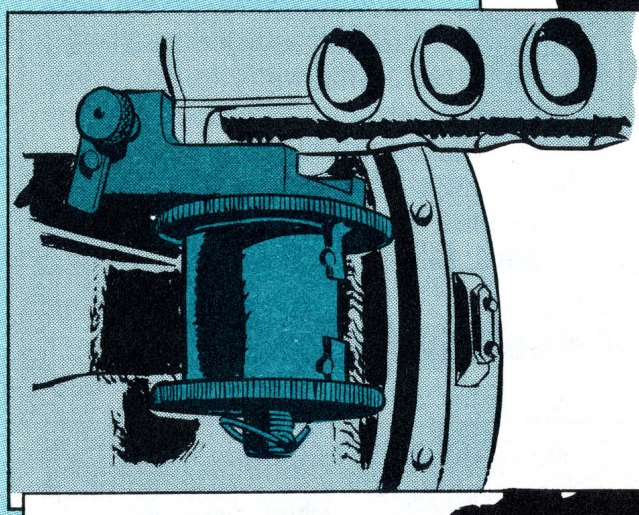
PS MORE

For the 50's

PS 168 HAS THE STORY ON THE 50's-- BUT HERE'RE A FEW THINGS WORTH WATCHING:

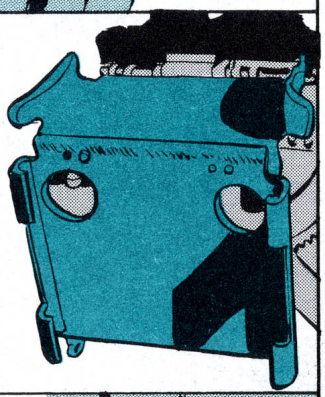
HORIZONTAL ADJUSTMENT BLOCK GROUP — **Cracked,** painted (don't remove paint and stuff with anything more abrasive than crocus cloth); rivets **loose, missing;** cotter key busted, **missing;** nut **loose, missing;** handwheel **can't be turned;** handwheel cotter key broken, **missing.**



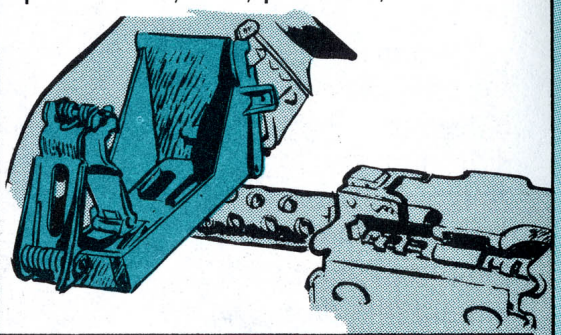


VERTICAL ADJUSTMENT YOKE ASSEMBLY — Yoke **cracked;** securing pin bent; pin latch **doesn't hold;** latch spring weak, **busted;** handwheel can't be turned; handwheel cotter keys broken, **missing;** locking clamps bent out of shape so much that **cotter keys can't go in handwheel holes, busted;** yoke cotter key broken, **missing** (There is no nut at the bottom of the yoke . . . only a cotter key.)

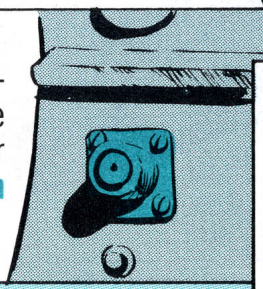
AMMO BOX SUPPORTS — Guides don't line up with machine gun feedway, **bent, busted;** tray not tightly fastened to ammo tray support; trails bent, burred, **broken.**



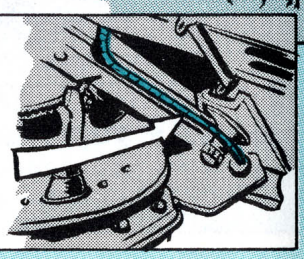
AMMO TRAYS — **Cracked, can't be mounted on supports;** springs weak, busted; pad cracked, bent; pins bent, **broken.**



SOLENOID RECEPTACLES — **Busted,** female contact plugged, fiber washer **missing from inside.**



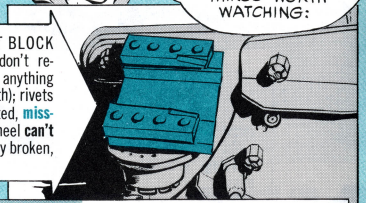
SOLENOID LEAD FOR LOWER WEAPONS — Not fastened to lower rear support, **busted.**

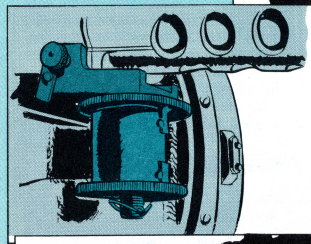


For the 50's

PS 168 HAS THE STORY ON THE 50's--BUT HERE'RE A FEW THINGS WORTH WATCHING:

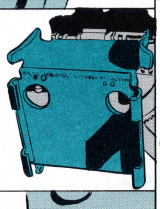
HORIZONTAL ADJUSTMENT BLOCK GROUP — **Cracked,** painted (don't remove paint and stuff with anything more abrasive than crocus cloth); rivets **loose, missing;** cotter key busted, **missing;** nut **loose, missing;** handwheel **can't be turned;** handwheel cotter key broken, **missing.**



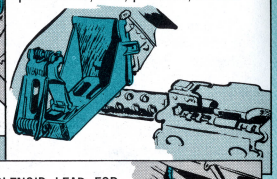


VERTICAL ADJUSTMENT YOKE ASSEMBLY — Yoke **cracked;** securing pin bent; pin latch **doesn't hold;** latch spring weak, **busted;** handwheel can't be turned; handwheel cotter keys broken, **missing;** locking clamps bent out of shape so much that **cotter keys can't go in handwheel holes, busted;** yoke cotter key broken, **missing** (There is no nut at the bottom of the yoke . . . only a cotter key.)

AMMO BOX SUPPORTS — Guides don't line up with machine gun feedway, **bent, busted;** tray not tightly fastened to ammo tray support; trails bent, burred, **broken.**

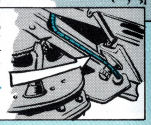


AMMO TRAYS — **Cracked, can't be mounted on supports;** springs weak, busted; pad cracked, bent; pins bent, **broken.**



SOLENOID RECEPTACLES — **Busted,** female contact plugged, fiber washer **missing from inside.**

SOLENOID LEAD FOR LOWER WEAPONS — Not fastened to lower rear support, **busted.**



Keep in mind when you hook up the solenoid cables that you want to mount each cable between the gun and the trunnion. If the cable is on the outside of the gun, it can get battered by the gun's operating handle.

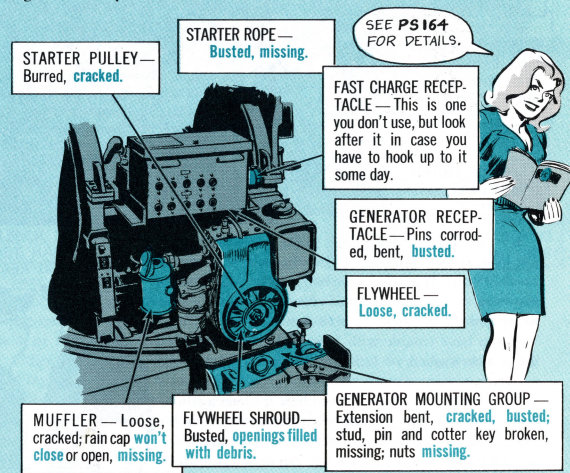
Remember to disconnect the solenoid cables before you remove the guns. More'n one cable has met an early end because a crewman pulled a weapon off the mount without first disconnecting the solenoid cable.

If some guy in your outfit does become a little forgetful and a solenoid cable gets snapped in two, salvage the connectors if they come through unbusted. They can always be used on a new piece of cable.

You also want to go easy when you have a solenoid cable in your mitts — like with one end connected to the mount or gun. Too much pull on the cable can tear the insulation away from the connectors. And that's a short cut to a short.

Generator Set

PS 164 gives you a rundown on what to look for when it comes to portable generator sets . . . and it's what you want to have in front of you when you check the generator on your M55. In addition, here are some other items to look over



PS MORE

Keep in mind when you hook up the solenoid cables that you want to mount each cable between the gun and the trunnion. If the cable is on the outside of the gun, it can get battered by the gun's operating handle.

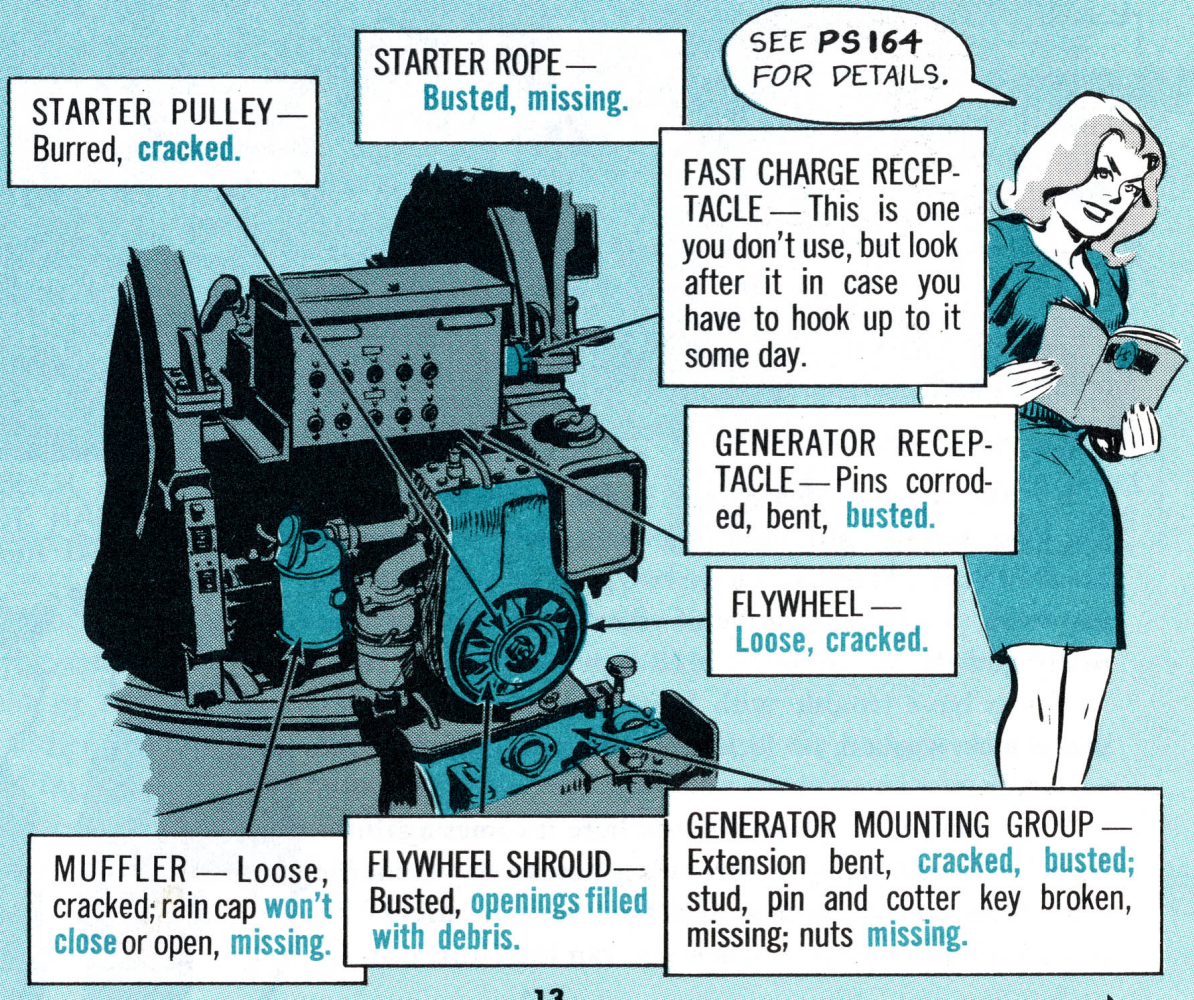
Remember to disconnect the solenoid cables before you remove the guns. More'n one cable has met an early end because a crewman pulled a weapon off the mount without first disconnecting the solenoid cable.

If some guy in your outfit does become a little forgetful and a solenoid cable gets snapped in two, salvage the connectors if they come through unbusted. They can always be used on a new piece of cable.

You also want to go easy when you have a solenoid cable in your mitts—like with one end connected to the mount or gun. Too much pull on the cable can tear the insulation away from the connectors. And that's a short cut to a short.

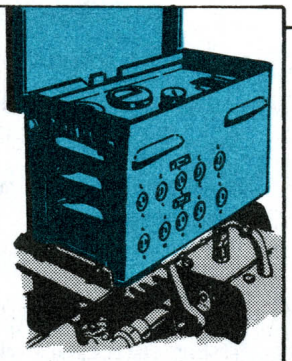
Generator Set

PS 164 gives you a rundown on what to look for when it comes to portable generator sets . . . and it's what you want to have in front of you when you check the generator on your M55. In addition, here are some other items to look over



PS MORE

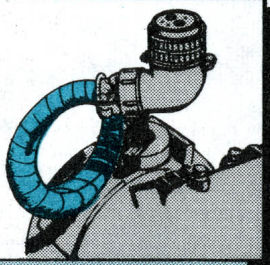
CONTROL CABINET—Beat up; cover can't be closed; **loose on mounts;** data plates and instruction chart **can't be read, painted over, missing.** (Although you don't use the output receptacles now, you never know what the future holds. So do what you can to keep them from getting battered.)



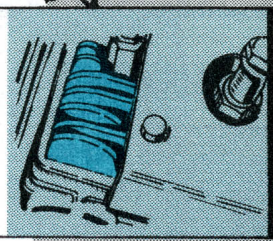
FUEL TANK—**Loose on mount, leaks;** strainer broken, missing; cap doesn't fit tight, **tabs broken, missing, valve not open,** gasket broken, missing; chain busted, missing; drain doesn't work. (Check the fuel lines, too—for **leaks, sharp bends** and **excessive wear.)**

GROUNDING STRAP—**Busted, not connected;** nuts, washers missing.

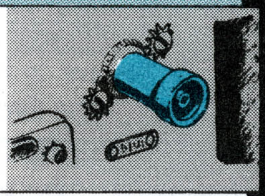
POWER CABLE—Frayed from rubbing; connector battered; fiber **disk busted, missing;** clamp loose, missing.



CYLINDER COOLING FINS—**Loaded with dirt, leaves and the like.**



STARTER SWITCH—**Doesn't work.**



Publications

An M55 crew that's on the ball has these publications on hand:

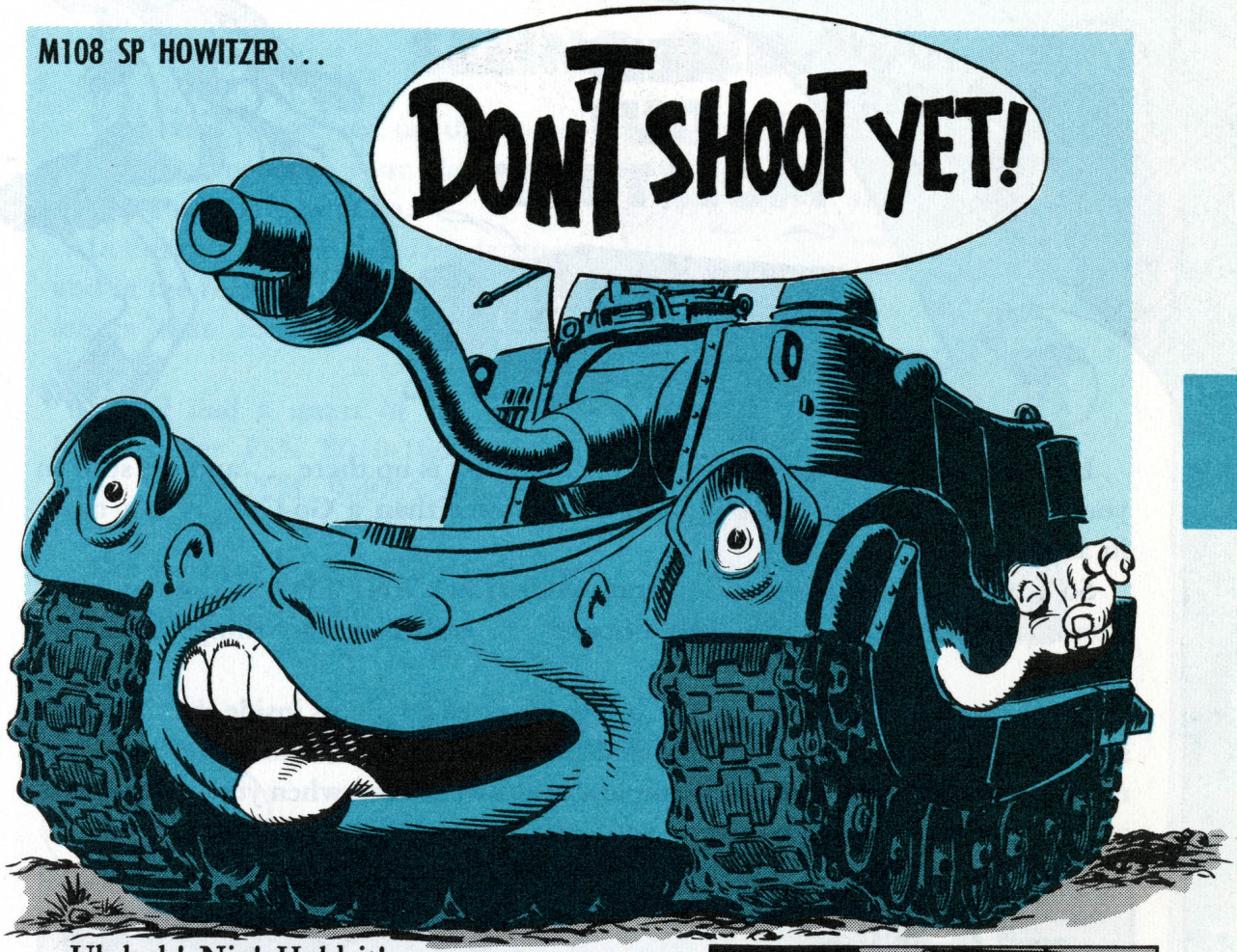
TM 9-2010, Ch 1 (May 65), Ch 2 (Sep 65), Ch 3 (Feb 66) — M55 Mount
TM 9-1005-209-25P, Ch 1 (May 66) — M55 Mount
TM 9-6140-200-15, Ch 1 (Jul 58) — Storage Battery Maintenance
TM 5-6115-328-15 (Jun 65) — Generator Set
TM 5-6115-328-25P (Feb 65) — Generator Set
LO 9-2010 (Jun 56) — M55 Mount
LO 9-1000-228-12 (May 66) — Small Arms Crew Served Weapons
TB 9-2010-1 (Aug 54) — Loading Aid Kit
FM 44-57, Ch 1 (Nov 51), Ch 2 (Jan 55), Ch 3 (Jan 66) — Service Of The Piece

It's also a good idea to get in the habit of looking for loose screws, nuts and bolts whenever you have a break in firing. When you have two guns or more chattering away, you get a mean lot of vibration. One thing that really gets the shakes is the M18 sight.

If you have trouble with loose screws and such, try using lock washers or locknuts that just might be the answer.

You've heard it before . . . and here it comes again—keep steam and high-pressure water hoses away from the M55. You may get it clean real fast, but you might also pay a high price later—when you can least afford it.

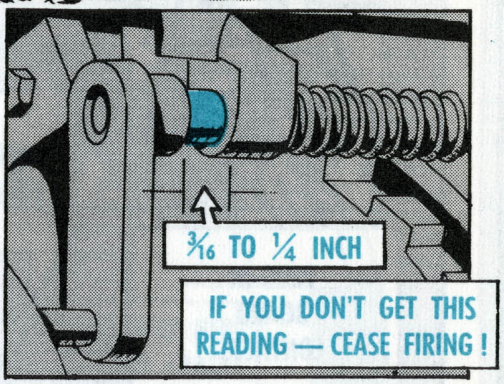
M108 SP HOWITZER . . .



Uh-huh! Nix! Hold it!

Never stick a round in the chamber of your 105-MM M108 SP howitzer till you've checked to make positive the main sliding shaft has returned to its forward position . . . meaning, you can see ¼- to 3/16-in of the shaft.

Why not? 'Cause if the shaft doesn't return and you can see space there, watch out! You might get an unplanned shoot-off!

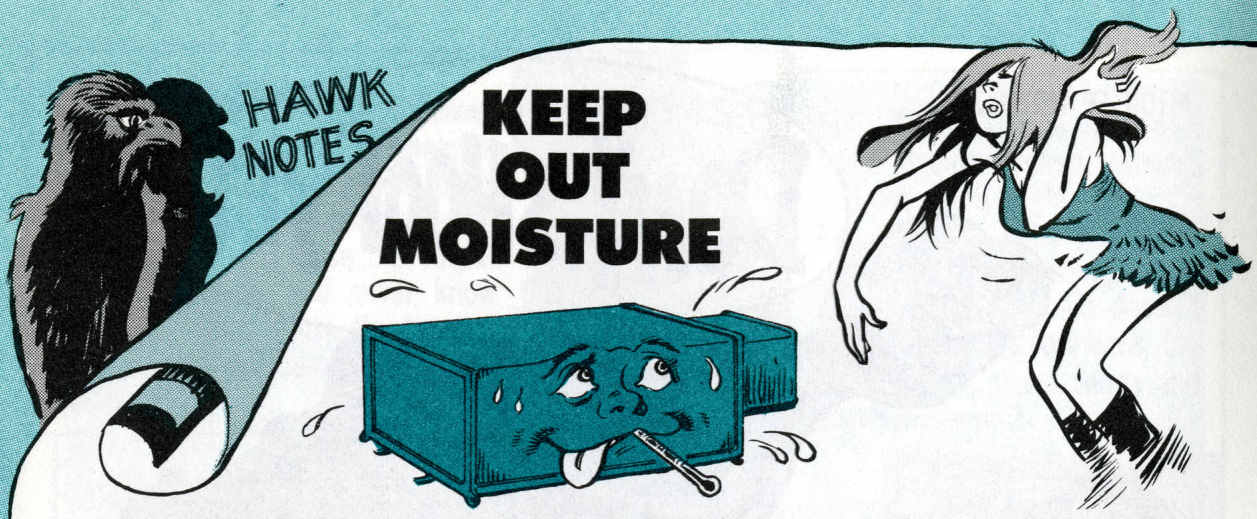


Here's the scoop: If the shaft doesn't come back like it's supposed to, it means the sleeve bearings have worked loose from the solenoid mounting frame of the firing mechanism group and the shaft is stuck to the rear . . . or could be that paint or rust are causing the sliding shaft to seize.

Either way, it forces the contact plunger shoe against the firing plunger and bushing of the cannon breech mechanism. This causes the percussion mechanism to release automatically when you close the breechblock.

What to do? You'll find the poop on fixing this condition on page 33 of EIR Digest TB 9-1000-200-15/12 (Dec 66). An MWO's also in the works on this.

Meantime . . . watch it!

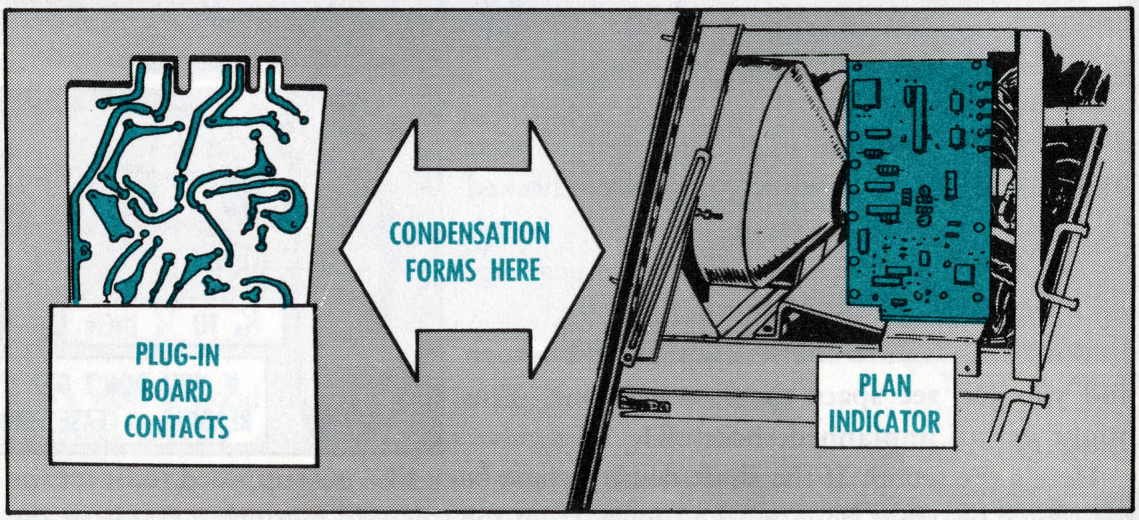


KEEP OUT MOISTURE

Let's say you're in a place where the humidity is up there . . . and the stuff in your thermometer can move up and down faster than a Go-Go girl can move in any direction.

So what happens when you operate your Hawk AN/ TPQ-21 simulator station . . . shut it down for a coupla hours . . . and then start things humming again?

Right as rain. Rain is what you think it's done on places inside the simulator station — like the connector wells and the plan indicator, window clutter, azimuth comparator and elevation comparator drawers. And when you get moisture around electronic gear you know you can have all sorts of problems.

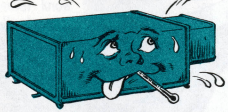


One way to fight the condensation battle is to run the station in standby instead of completely shutting it down. The heat generated in standby is a big help.

It's also worth turning on the heating system before going into operation — until you see that any condensation has disappeared from the connector wells and drawers.

Another thing . . . take a look at the contacts for the plug-in boards every so often. The idea's to get rid of any corrosion you come across.

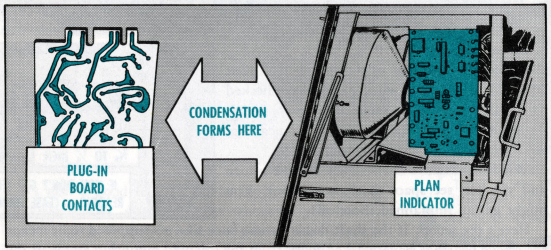
KEEP OUT MOISTURE



Let's say you're in a place where the humidity is up there . . . and the stuff in your thermometer can move up and down faster than a Go-Go girl can move in any direction.

So what happens when you operate your Hawk AN/ TPQ-21 simulator station . . . shut it down for a coupla hours . . . and then start things humming again?

Right as rain. Rain is what you think it's done on places inside the simulator station—like the connector wells and the plan indicator, window clutter, azimuth comparator and elevation comparator drawers. And when you get moisture around electronic gear you know you can have all sorts of problems.



One way to fight the condensation battle is to run the station in standby instead of completely shutting it down. The heat generated in standby is a big help.

It's also worth turning on the heating system before going into operation—until you see that any condensation has disappeared from the connector wells and drawers.

Another thing . . . take a look at the contacts for the plug-in boards every so often. The idea's to get rid of any corrosion you come across.

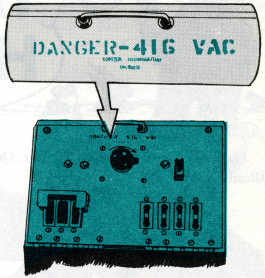
SEEING RED

You want to see red on the power distribution panel in your Hawk AN/ TPQ-21 simulator station.

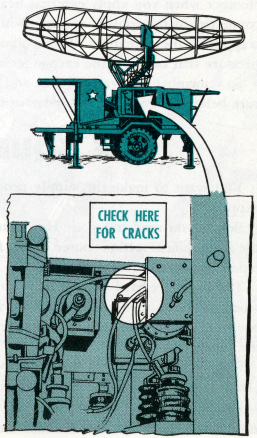
In this case, it's red lusterless lacquer, and in the form of ½-in high stenciled letters that read: "DANGER—416 VAC."

You'll find a quart of the lacquer listed under FSN 8010-166-3150 on page 53 of TM 9-4935-501-15P/1 (Jun 66).

The warning goes smack dab below the handle on the panel.



LACKS CRACKS?



It pays to gaze every few days at the brackets that hold the reactor in the high-voltage power supply cabinet on your Hawk AN/MPQ-35 pulse acq radar.

You just might spot a crack or two in the brackets. If the cracks turn into breaks and the reactor drops, the power supply could take a real beating.

So head off possible trouble by replacing any brackets that look like they've had it.

SEEING RED

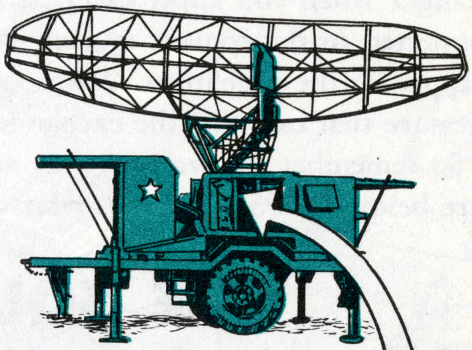
You want to see red on the power distribution panel in your Hawk AN/TPQ-21 simulator station.

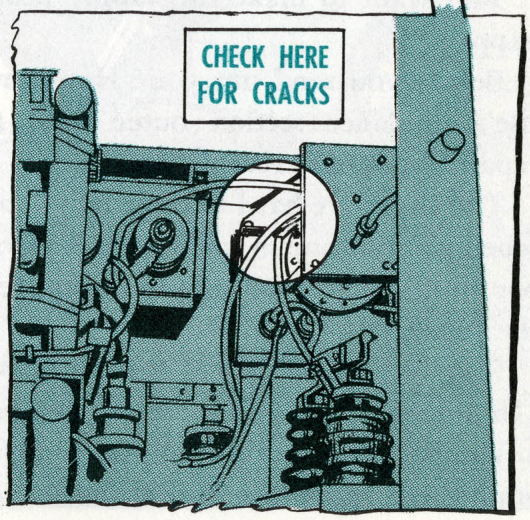
In this case, it's red lusterless lacquer, and in the form of ½-in high stenciled letters that read: "DANGER—416 VAC."

You'll find a quart of the lacquer listed under FSN 8010-166-3150 on page 53 of TM 9-4935-501-15P/1 (Jun 66).

The warning goes smack dab below the handle on the panel.

LACKS CRACKS?



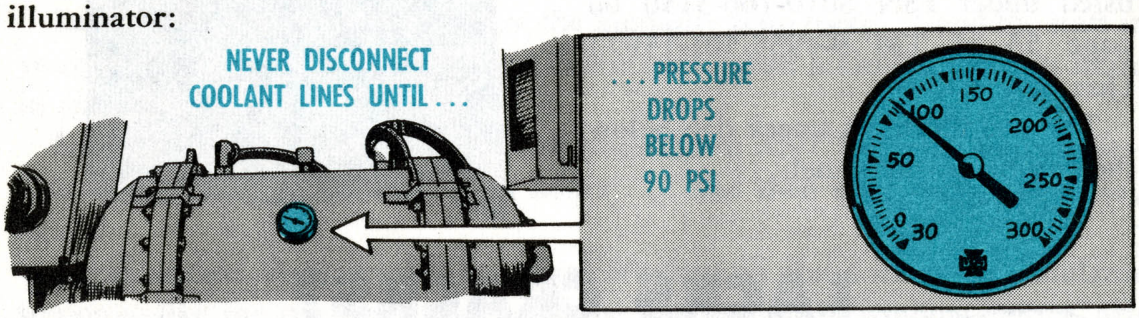


It pays to gaze every few days at the brackets that hold the reactor in the high-voltage power supply cabinet on your Hawk AN/MPQ-35 pulse acq radar.

You just might spot a crack or two in the brackets. If the cracks turn into breaks and the reactor drops, the power supply could take a real beating.

So head off possible trouble by replacing any brackets that look like they've had it.

Make the warning loud and clear. On your Hawk AN/MPQ-39 high powered illuminator:



Why? You can get the granddaddy of all pressures built-up in the heat exchanger when you apply external heat to it when it's full of coolant, but not connected to the coolant system. When the lines are disconnected, the coolant's trapped in the exchanger. The coolant expands and with it comes the kind of pressure that can bust the exchanger and batter the HVPS.

So remember the warning . . . and if you're in a hurry to get the HVPS pressure below 90 PSI, run the radar in standby.

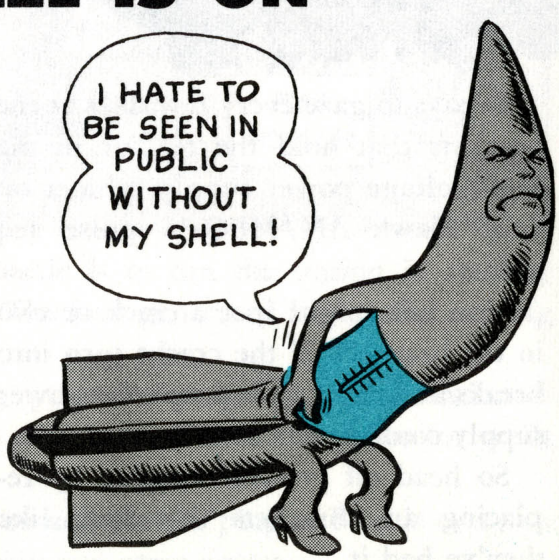
THE SQUEEZE IS ON

You want to make the supply people happy?

Before you send out your Hawk missile's guidance section outer shell for repair, be sure it really needs it.

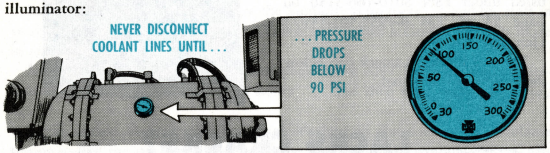
The shells are hard to come by . . . and when you put one in for repair and draw one in exchange, the supply system feels the pinch.

So give para 94 of TM 9-1410-500-12 (16 Jul 62) a hard look before deciding any dents, scratches or gouges in any of your shells make 'em unserviceable.



TAKE THE HEAT OFF

Make the warning loud and clear. On your Hawk AN/MPQ-39 high powered illuminator:



Why? You can get the granddaddy of all pressures built-up in the heat exchanger when you apply external heat to it when it's full of coolant, but not connected to the coolant system. When the lines are disconnected, the coolant's trapped in the exchanger. The coolant expands and with it comes the kind of pressure that can bust the exchanger and batter the HVPS.

So remember the warning . . . and if you're in a hurry to get the HVPS pressure below 90 PSI, run the radar in standby.

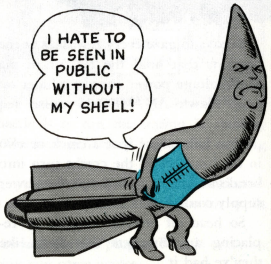
THE SQUEEZE IS ON

You want to make the supply people happy?

Before you send out your Hawk missile's guidance section outer shell for repair, be sure it really needs it.

The shells are hard to come by . . . and when you put one in for repair and draw one in exchange, the supply system feels the pinch.

So give para 94 of TM 9-1410-500-12 (16 Jul 62) a hard look before deciding any dents, scratches or gouges in any of your shells make 'em unserviceable.



HEAP BIG TROUBLES

Smoke signals may be a way of spreading the word, but the news is bad when you see puffs of smoke coming from the modulator power supply for your Hawk AN/MPQ-37 range-only radar.

It could mean there's an overrated CB-11 modulator plate circuit breaker in the power distribution panel.

The CB-11 circuit breaker that belongs in the panel is rated at 2 amp, 416 VAC, 400 CPS.

If you have something else, send a signal to your support people.

NEEDED

You spurtin' blue flame 'cause you need an electronic chassis or two for your Hawk missile system?

Other outfits are also trying to latch on to replacement chassis. And it's a situation that goes right on up the supply line.

A lot of the blame can be put on the guys who've put chassis that need repairs on a shelf somewhere . . . and maybe forgotten about them. And when a chassis doesn't get repaired and then put back in the supply system, you're going to have shortages.

How're your shelves?

HEAP BIG TROUBLES

Smoke signals may be a way of spreading the word, but the news is bad when you see puffs of smoke coming from the modulator power supply for your Hawk AN/MPQ-37 range-only radar.

It could mean there's an overrated CB-11 modulator plate circuit breaker in the power distribution panel.

The CB-11 circuit breaker that belongs in the panel is rated at 2 amp, 416 VAC, 400 CPS.

If you have something else, send a signal to your support people.

You spurtin' blue flame 'cause you need an electronic chassis or two for your Hawk missile system?

Other outfits are also trying to latch on to replacement chassis. And it's a situation that goes right on up the supply line.

A lot of the blame can be put on the guys who've put chassis that need repairs on a shelf somewhere . . . and maybe forgotten about them. And when a chassis doesn't get repaired and then put back in the supply system, you're going to have shortages.

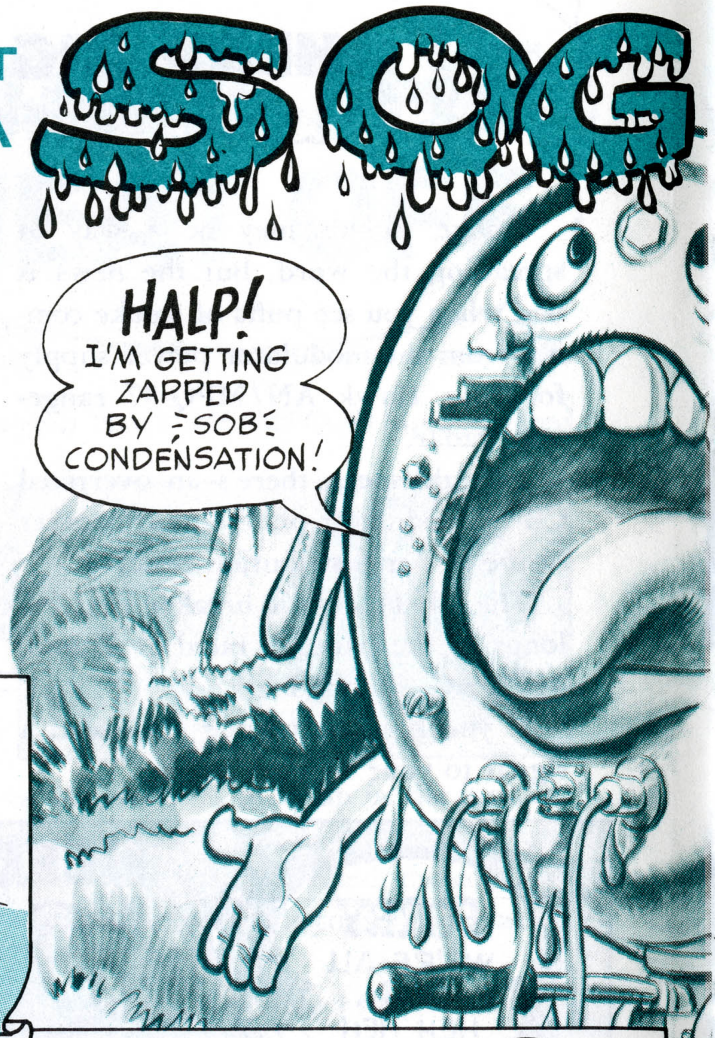
How're your shelves?

GOT A SOG

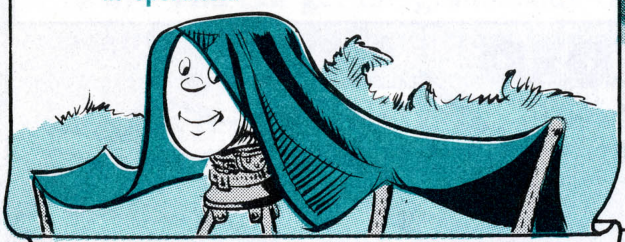
Soggy, seeping condensation is about the only thing that can sneak up on your AN/PPS-4 or AN/TPS-33 radar set before you know it.

That Charlie country humidity can come in with a one-two punch that puts radar equipment down for the 10-count — and a No. 10 radar is something you don't want.

For real no-sweat (er, condensation) PM, try this:

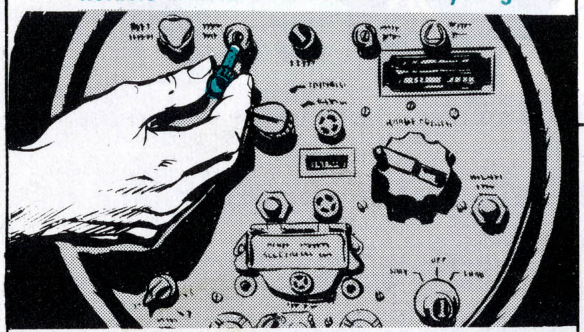


1. Keep them under cover (like tents, huts, buildings) until you're ready to put 'em in operation.



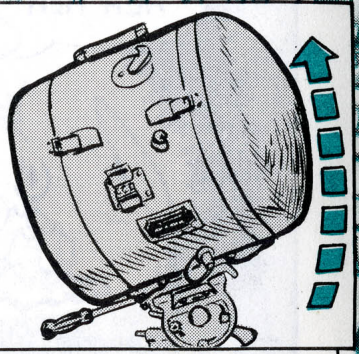
2. Operate each set at least two hours a day.

3. Remove all fuses from the front panel of the Pipsy-4 when it's not in use (in sheltered areas only). Dry the fuses and fuseholders with a clean cloth when you get

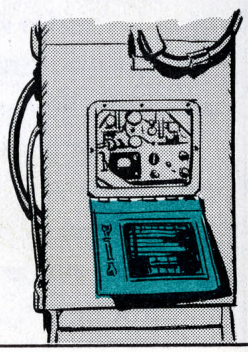


ready to operate. (Change 8 to TM 11-5840-211-12 has your 1/8-amp fuse under FSN 5920-050-4965 and your 5-amp fuse under FSN 5920-284-6796.)

4. If you can't find a covered area for the Pipsy-4, tilt its radome up as far as you can. Let it stay that way until you're ready to use it again.



5. If your Tipsy-33 is under cover, open all access panels when the set's not operating. If you can't find shelter for it, cover all the components with a poncho or other waterproof shield.

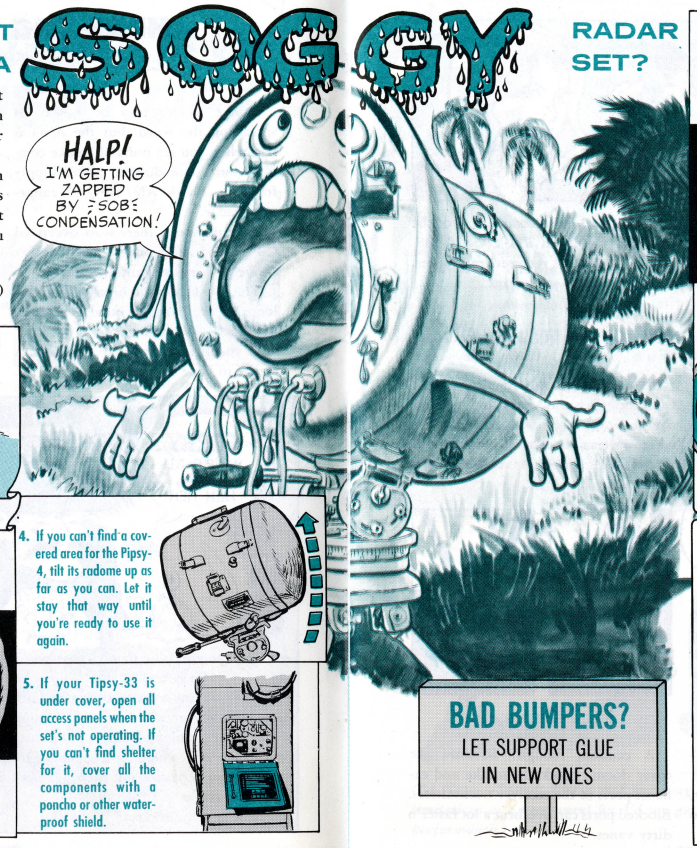


GOT A SOGGY RADAR SET?

Soggy, seeping condensation is about the only thing that can sneak up on your AN/PPS-4 or AN/TPS-33 radar set before you know it.

That Charlie country humidity can come in with a one-two punch that puts radar equipment down for the 10-count — and a No. 10 radar is something you don't want.

For real no-sweat (er, condensation) PM, try this:



1. Keep them under cover (like tents, huts, buildings) until you're ready to put 'em in operation.

2. Operate each set at least two hours a day.

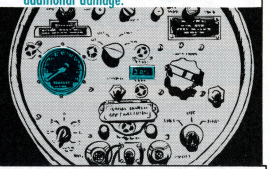
3. Remove all fuses from the front panel of the Pipsy-4 when it's not in use (in sheltered areas only). Dry the fuses and fuseholders with a clean cloth when you get

ready to operate. (Change 8 to TM 11-5840-211-12 has your 1/8-amp fuse under FSN 5920-050-4965 and your 5-amp fuse under FSN 5920-284-6796.)

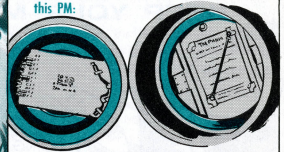
4. If you can't find a covered area for the Pipsy-4, tilt its radome up as far as you can. Let it stay that way until you're ready to use it again.

5. If your Tipsy-33 is under cover, open all access panels when the set's not operating. If you can't find shelter for it, cover all the components with a poncho or other waterproof shield.

6. If you see moisture in your set's range counter or range extension meter windows, you're too late with the preventive measures. Get the set to your direct support shop for a look-see in order to prevent additional damage.

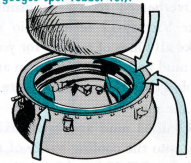


7. To help prevent rot and moisture ruin of your CY-2733/PPS-4 rubber bumpers, try this PM:

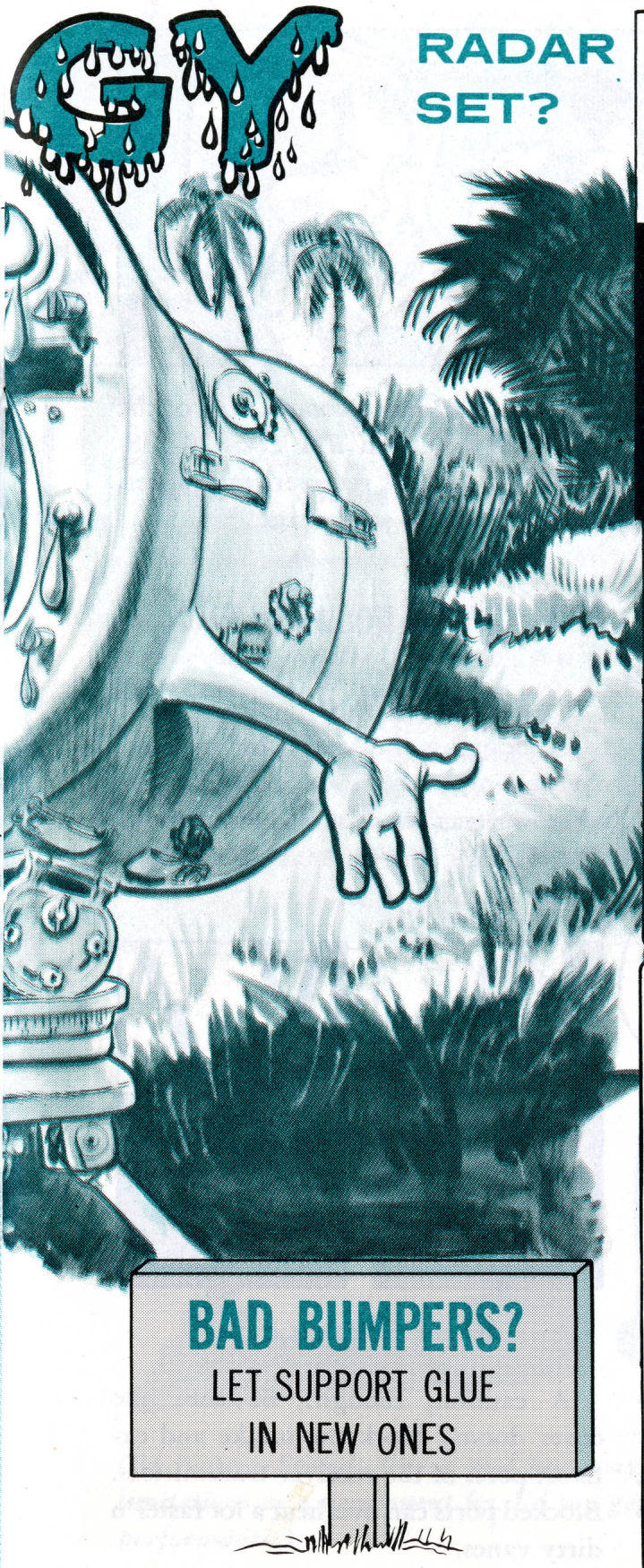


Keep the inside of the carrying case dry (use a dry, soft cloth and **no** solvents).

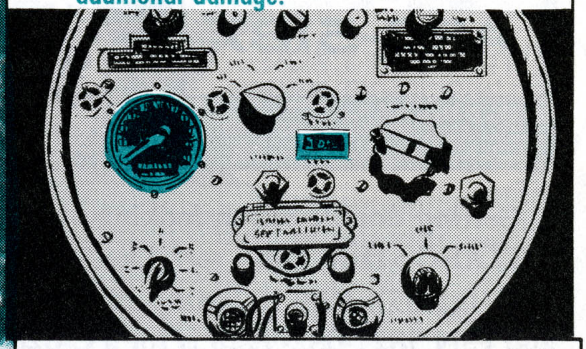
Be sure the radome is facing the cushions when you insert the set in the case (this heads off gouge damage to the bumpers from the control panel latches. The gouges spur rubber rot).



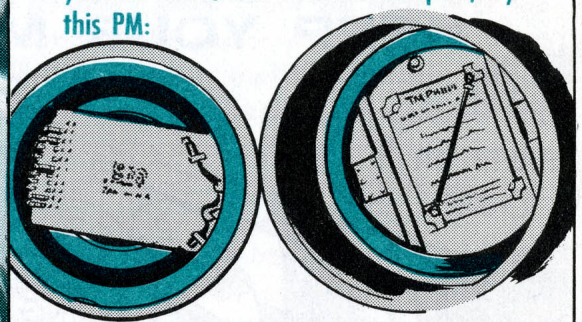
A light layer of talcum powder spread on the bumpers before inserting the radar will prevent the radome from sticking to the bumpers.



6. If you see moisture in your set's range counter or range extension meter windows, you're too late with the preventive measures. Get the set to your direct support shop for a look-see in order to prevent additional damage.

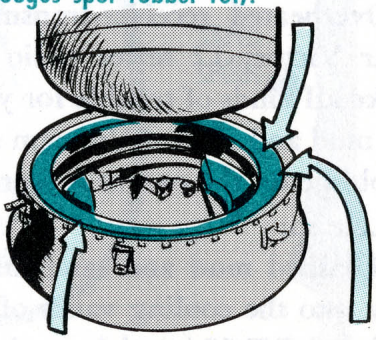


7. To help prevent rot and moisture ruin of your CY-2733/PPS-4 rubber bumpers, try this PM:



Keep the inside of the carrying case dry (use a dry, soft cloth and **no** solvents).

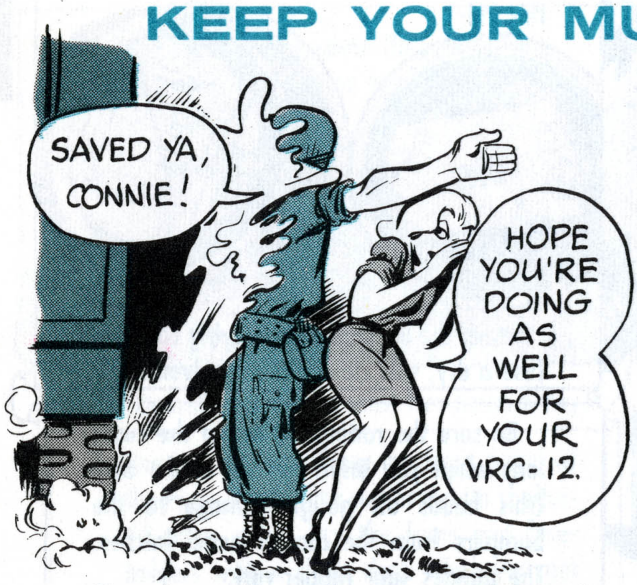
Be sure the radome is facing the cushions when you insert the set in the case (this heads off gouge damage to the bumpers from the control panel latches. The gouges spur rubber rot).



A light layer of talcum powder spread on the bumpers before inserting the radar will prevent the radome from sticking to the bumpers.

Getting double vision looking at stock numbers for major components of the AN/ARC-51BX radio set? Don't sweat it. Make a note in TM 11-5820-518-20P (Feb 65): FSN 5821-082-3927 is for a RT-742/ARC-51 receiver-transmitter, and FSN 5821-082-3928 is for a C-6287/ARC-51X radio set control.

KEEP YOUR MUD GUARD UP

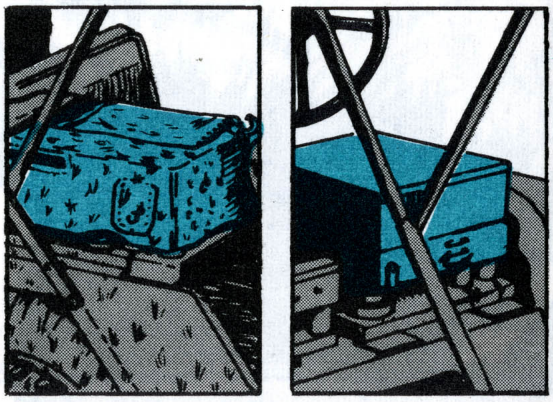


Overheated receiver-transmitters in your Victory-12 series radio sets can make all kinds of trouble for you. And, the mud and sand of Vietnam are eager to oblige on the overheat score.

Like so:

Splashed mud and sand make their way into the cooling vanes of the RT-246 and RT-524 and keep the blower motor from doing its job. Naturally, you've got to check the vanes often to be sure they're clean.

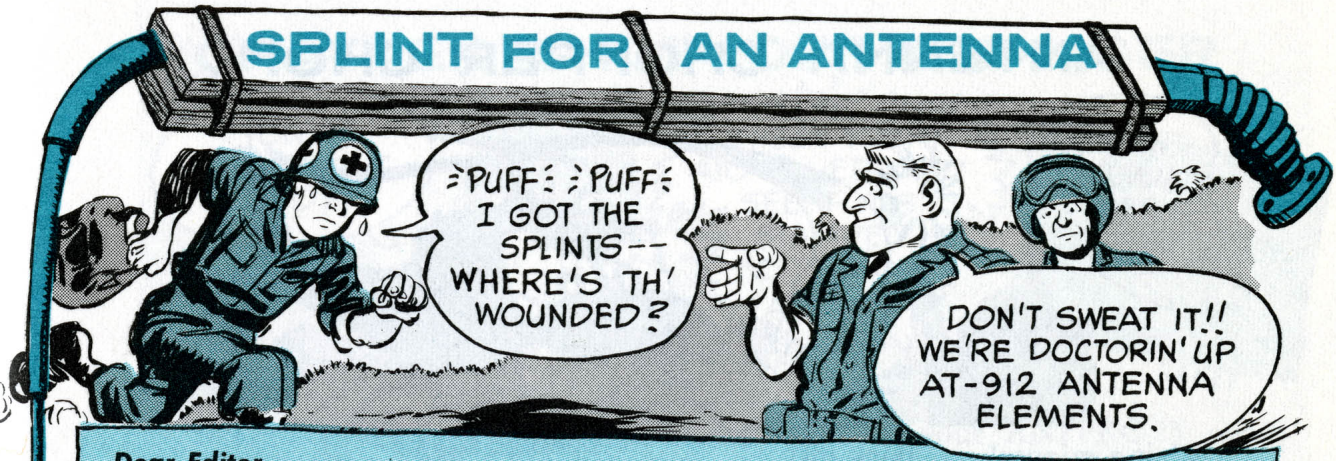
To prevent splashed mud and sand from clogging the vanes and causing overheating, use the radio set's cover wherever feasible. Not only is the cover a good mud guard but it also helps keep out moisture.



COVER IT OR KEEP IT CLEAN

A caution, though: Be sure the cover doesn't block the intake and exhaust ports of the receiver-transmitters. Blocked ports can overheat a lot faster'n dirty vanes.

SPLINT FOR AN ANTENNA



Dear Editor,

We've come up with a fix for our antennas here in the 25th Division that may be helpful to other units in a similar bind.

The AT-912 antenna elements on our M48A3's break occasionally from whipping against the open hatch cover.

Since the element that breaks (the AT-1096/VRC lower element) is hard to come by at times, we keep communicating with a flexible "splint" that we slide over the element and tape in place. It works fine so long as the center wire of the element isn't severed. Usually, though, it's just the fiber glass cover that's damaged.

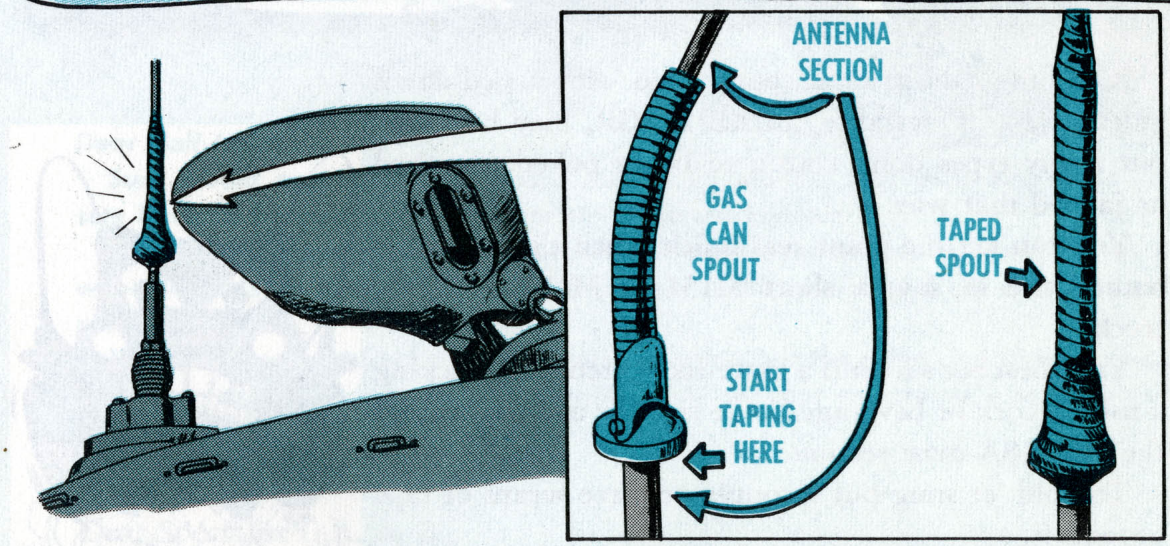
What we use till we can get a replacement element is a flexible gas can spout.

We slide the spout down over the break, keeping the break about midway up the nozzle. Then, tape the spout in place from the bottom up. The spout has to be completely taped to prevent R.F. leakage through the metal tube.

In a bind a wooden splint could be used, but you wouldn't have flexibility.

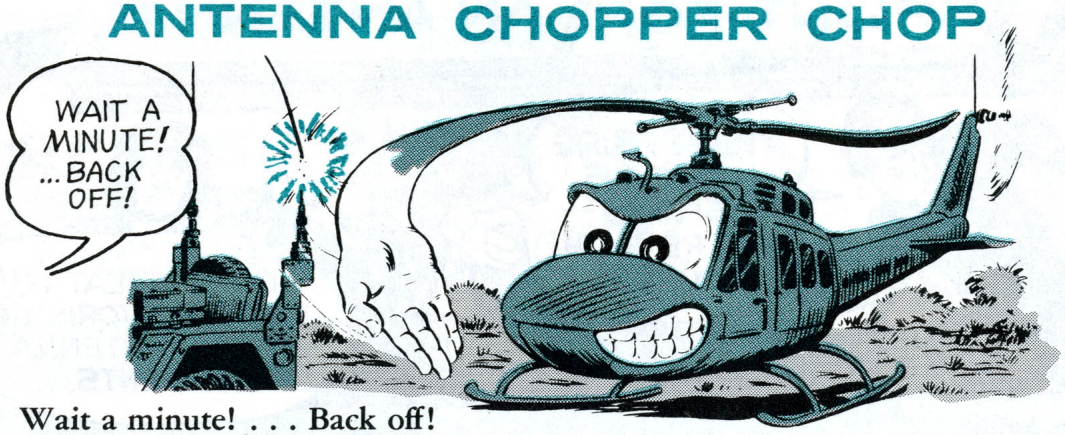
The "splints" do a pretty good job for us while we're waiting for replacements.

Maintenance Personnel
3/4 Cav, 25th Inf. Div.



(Ed Note—Sounds like a real fine way to get the word out, although it has limitations as a permanent fix. I'd say get the replacement soonest for best radio performance.)

ANTENNA CHOPPER CHOP



Wait a minute! . . . Back off!

When you're told that a portable or vehicle radio set becomes a part of you, remember the antenna's there too.

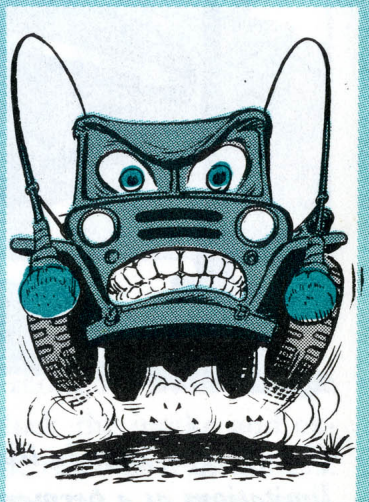
Take, f'rinstance, an AT-271()/PRC, AT-912/VRC or AS-1729/VRC antenna. It can wind up in the way of, say, a UH-1 helicopter rotary blade and cause all kinds of chaos.

Besides cutting communications real fast when the blade gives the antenna a karate chop, the blow can damage the Huey's go power and anybody in the area could be seriously injured by darting debris.

Your best bet's to keep the radio antenna out of the rotary blade's reach.

DULL SHARP ANTENNA

Ramming rabbits on a rough road with a tied-down antenna, like f'rinstance, an AB-15/GR, may be sport, but Army types don't cotton to being poked, punched or jabbed that way.



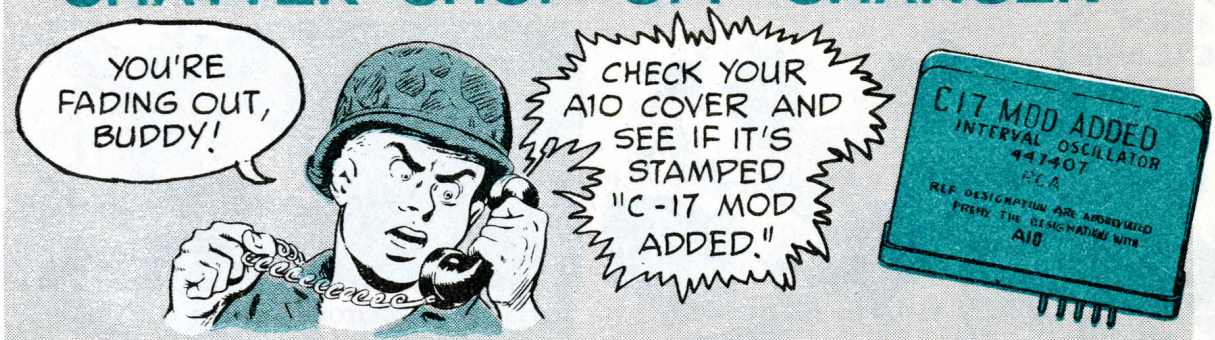
You can get the point real quick when that long antenna's tied to, say, a short M151 or M151A1 ¼-ton truck.

Your best bet's to dull a lance-like antenna by sticking a fishing cork or beverage bottle stopper over the end of the MS-118A mast section.

To hold 'er snug put a couple or three wraps of tape around it.

Then, whether a guy walks into the antenna in the dark or backs into it during the day, he won't feel like he has been shish kebabed.

CHATTER CHOP OFF CHANGER



Next time you're chattering back and forth on your AN/PRC-25 series radio set and you lose your channel or station, consider this:

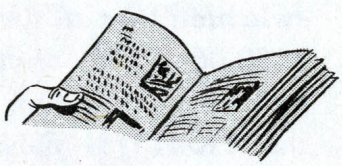
Your A10 oscillator in the RT-505 may be your culprit, with replacement of the module the order of the day.

Early model A10's still are in the supply system, but a late model has licked the back-and-forth channel problem.

If you lose your channel or station during intermittent transmission get somebody to level an eyeball at the A10. If it's the improved variety, the A10 cover will be stamped with the words "C-17 MOD ADDED." Naturally, you begin to suspect something other than the A10 quick-like.

If the oscillator's not stamped with "C-17 MOD ADDED," replacing the A10 may end your problem soonest.

ALINE YOUR PRC-6



Dear Half-Mast,

Sure would appreciate it if you'd remind PS readers that their AN/PRC-6 radio sets have to be re-alined whenever they change crystals.

Here in the support shop we aline all PRC-6's we repair on the 51mc crystal. But, when the sets go back to the units they have to be re-alined if the 51mc crystal is not used.

We get some sets back in good working order, but the using unit did not re-aline for the crystal they changed to. Naturally, they thought something was wrong with their sets.

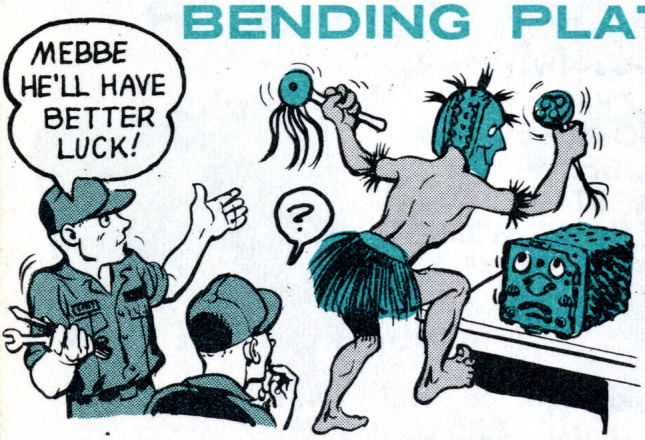
SP5 I. A. A. B.

Dear Specialist I. A. A. B.,

Well said. Users aline their sets per para 12 of TM 11-296 whenever they change crystals. There's a note in the changes to the TM on V1 and V2 tubes that should be heeded, too.

Half-Mast

BENDING PLATES IS TABOO



Trying to peak the frequency of your radio receiver with commonplace tools can meet with about as much success as a surgeon operating with a machette or pickax.

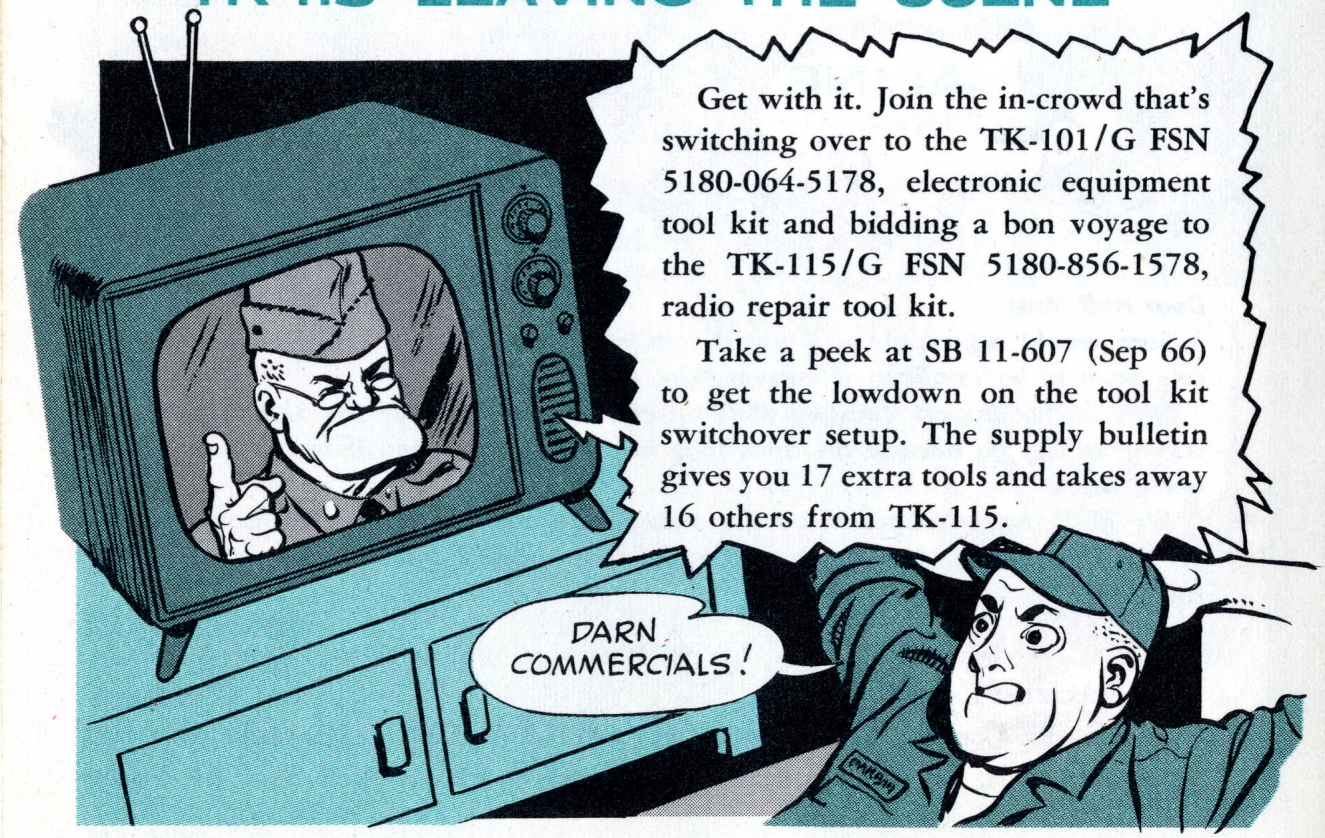
The receiver, like f'rinstance, a R-108, -109 or -110, will be thrown out of calibration by tinkering with the

variable capacitors. Then, it'll take a ouija board when it comes to figuring out tuning frequencies.

So, your best bet's to keep those pliers, screwdrivers and the like, from between the tuning plates.

This goes for dusting and cleaning time, too. Never force an oversized instrument into the plates 'cause it'll bend them and throw your receiver out of frequency calibration.

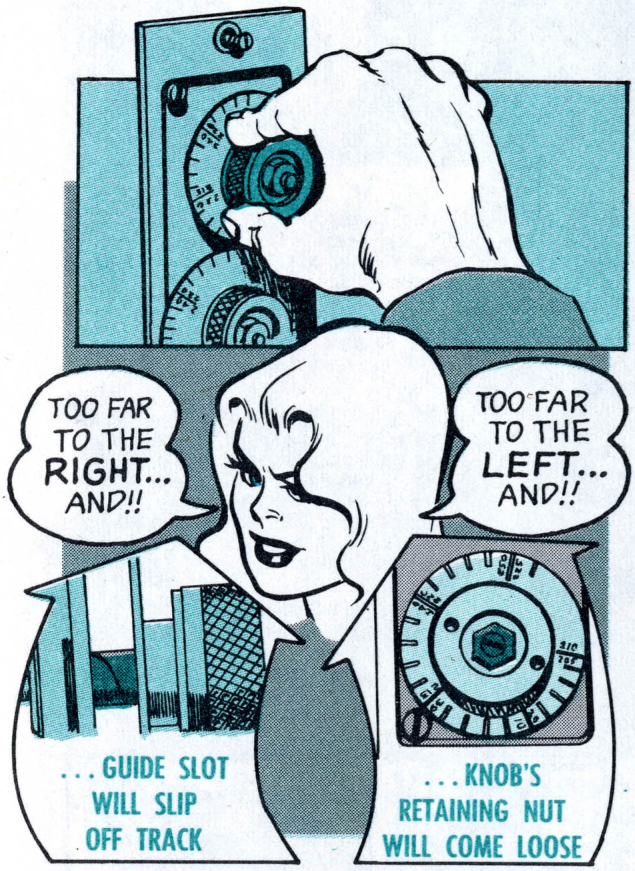
TK-115 LEAVING THE SCENE



Get with it. Join the in-crowd that's switching over to the TK-101/G FSN 5180-064-5178, electronic equipment tool kit and bidding a bon voyage to the TK-115/G FSN 5180-856-1578, radio repair tool kit.

Take a peek at SB 11-607 (Sep 66) to get the lowdown on the tool kit switchover setup. The supply bulletin gives you 17 extra tools and takes away 16 others from TK-115.

KNOB FORCING'LL FLUB FILTERS



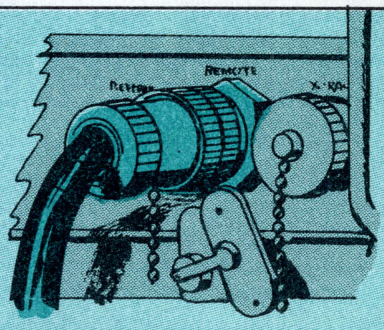
Stop at the stops of your AN/TRC-24 radio set's band-pass filter knob or you'll stop communicatin'.

Like f'rinstance, if you heavy hand the filter knobs of filter kits that go in the CY-1344 accessory case too far to the right, the guide slot will slip off its track and throw the Track-24's frequency setting out of whack.

If you pressure your paws too far to the left, the knob's retaining nut will come loose and louse up calibration of the transmitting or receiving frequency. The nut's there to snuggle the knob on the shaft . . . not for torquing it tight.

Your best bet is to keep within the couple or three turns the shaft allows . . . and stop at the stops.

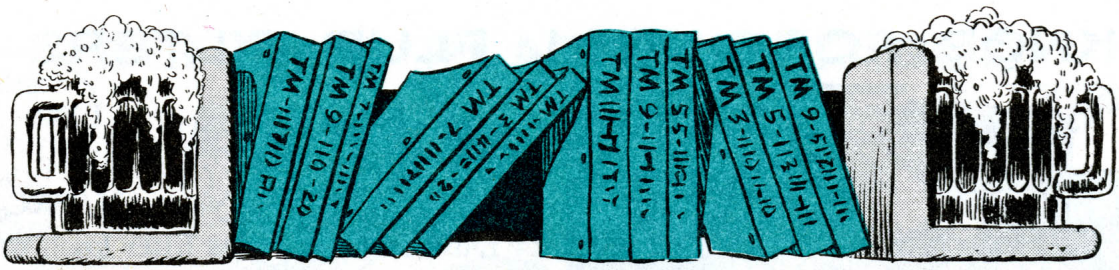
KEEP IT TIGHT



Snug cable connections on radio equipment can prevent water seepage and resulting loss of power or damage.

CABLE FSN FOR RWI

Trying to team up your RT-246 or -524 receiver-transmitter with an AN/GSA-7 radio set control group for radio wire integration? Don't sweat it. CX-7474/U special purpose electrical cable, FSN 5995-985-7561, will do the job like it says in Change 1 (Apr 63) to TM 11-5820-401-10. The CX-7474 is listed in C5995-IL-A (Feb 66) on Page 4.198.



A selected list of recent publications of interest to Organizational Maintenance Personnel. This is a list compiled from recent Adjutant General's Distribution Center Bulletins. For complete details see DA Pam 310-4 and Ch 4 (15 Dec 66) and DA Pam 310-6 and Ch 3 (Apr 67).

TECHNICAL MANUALS

TM 1-OH-23C-6, C3, Mar, OH-23.
TM 5-3431-203-15, Feb, Welding Machine, Arc, Inert Gas Shielded (Midstates Mod MAG 300 AC/DC T134) FSN 3431-862-6670.
TM 5-3800-217-ESC, Mar, Roller Motorized 10-Ton, Galion Mod Chief Rod-O-Matic, Buffalo Springfield Mod VM-31C.
TM 5-4120-221-15, Feb, Pershing.
TM 5-4310-200-25P, Feb, Compressor, Air, 15 CFM, 175PSI (Champion Pneumatic Mod OEG-458-ENG).
TM 5-4310-218-25P, Jan, Compressor, Reciprocating, Air: Gas Driven, 15 CFM, 3, 500 PSI Winterized (Joy Mod 15HGP9-MS-1).
TM 5-4320-210-25P, Jan, Pump, Centrifugal, Petroleum; Gas Driven, Skid Mtd; 4 In, 175 GPM 560 Ft Head 595 GPM 450 Ft Head (Consolidated Diesel Mod 4093).
TM 5-6100-221-ESC, Feb, ESC For Gen Set, GED, Wheel Mtd, Air Cooled, 7.5 KW, 28 V, DC, Atlas Polar Mod MC111; Bendix Mod 59B2-1-A-1-B.
TM 5-6115-294-25P, Feb, Sergeant.
TM 5-6615-292-25P, Feb, Gen Set, DED, 150 KW, AC, 240/416 V, 3 Phase, 60 Cycle: (Cummins Mod NFH-12G-150KW-AC).
TM 9-1005-243-12, C5, Mar Armament Subsystem M6.
TM 9-1055-217-20, C3, Feb, 2.75 Inch RLXM3.
TM 9-1400-375-10/2/1, Mar, Pershing.
TM 9-1430-375-15P/2, Jan, Pershing.
TM 9-2300-224-20P/3, C6 Ptl, Feb, M113A1, Personnel Carrier Families.
TM 9-2350-224-20, C2, Feb, Tank Combat-Full Tracked-90-MM Gun, M48A3.
TM 9-4935-254-15, Jan, Nike-Herc.
TM 9-4935-378-15P/1, Jan, Pershing.
TM 9-4935-461-15/2, C2, Mar, GML M22.
TM 10-500-48, Feb, Airdrop Of Supplies and Equip Rigging 7-Ton Airborne Crane-Shovel And ½- And ⅜-Cubic Yard Crane-Shovel Attachments.
TM 10-500-53, Feb, Airdrop Of Supplies & Equip: Rigging Ammo For Low And High Velocity Drop.
TM 10-3520-202-10, Mar, Shoe Repair Shop, Trailer Mtd, 2 Wheel, (York Astra Mod D8700541).
TM 10-4230-202-15, Jan, Delousing Outfit, (Johnson Service Co Mod 252 QM) FSN 4230-889-2315.
TM 10-7310-201-25P, Dec, Accessory Outfit, Gas Field Range.
TM 11-490-4, Feb, Strategic Army Communication Facilities Data Station Operation.
TM 11-1090-268-13, Jan, (OUO), Starlight Scope, Small Hand-Held Or Individual Weapons, Mtd.
TM 11-2300-352-15-3, Feb, Installation Of Radio Set AN/VRC-49 In M37 ¾-Ton Cargo Truck.
TM 11-2300-355-15-2, Feb, Installation Of Radio Set AN/VRC-12 Or AN/VRC-47 In M113 Or M113A1 APC.
TM 11-2300-355-15-6, Feb, Installation of Radio Set AN/VRC-46 Installation Unit When Three Radio Sets AN/VRC-46 Are Required For Curbside Installation In Carrier, Personnel, Armored, M113 Or M113A1.
TM 11-5805-358-15, Jan, AN/TCC-60 Telephone Terminal Set.
TM 11-5805-389-15, Mar, AN/MTC-10 Central Office Group Telephone.
TM 11-5815-331-14, Feb, AN/VSC-2 Radio TT Set.
TM 11-5820-590-12-1, Mar, AN/PRC-74B Radio Set.
TM 11-5895-367-15, Jan, AN/TRC-108(V), Radio Terminal Set.

TECHNICAL BULLETINS

TB 9-1400-375-25, Jan, Pershing.
TB 9-1400-425-25, Feb, Redeye.
TB 9-1400-500-25, Feb, Hawk.
TB 9-1425-500-25, Feb, Hawk.
TB 38-750-2, Feb, Equip Record Maint Management, Medical Service.
TB 55-1520-214-20/6, Apr, OH-6.

MODIFICATION WORK ORDERS

MWO 55-1510-201-20/1, C1, Mar, U-8.
MWO 55-1510-204-34/37, C1, Apr, OV-1.
MWO 55-1510-204-34/47, C1, Apr, OV-1.
MWO 55-1510-204-34/48, C1, Mar, OV-1.
MWO 55-1510-204-34/63, Mar, OV-1.
MWO 55-1510-204-40/3, Apr, OV-1.
MWO 55-1520-203-40/3, Apr, CH-37.
MWO 55-1520-204-40/2, Mar, OH-13.

MISCELLANEOUS

AR 220-1, Feb, Unit Readiness.
DA Cir 750-19, Mar, Implementing Instructions for Commercial Vehicles.
DA Pam 310-6, C3, Apr, Index to Supply Catalogs and Supply Manuals.
FM 23-82, C1, Mar, 106-mm Recoilless Rifle, M40A1.
LO 10-3510-208-12, Jan, Laundry Unit, Army Type M532 (EIDAL ELT9T).

DA FORM 12-31 WRITE-IN ITEMS

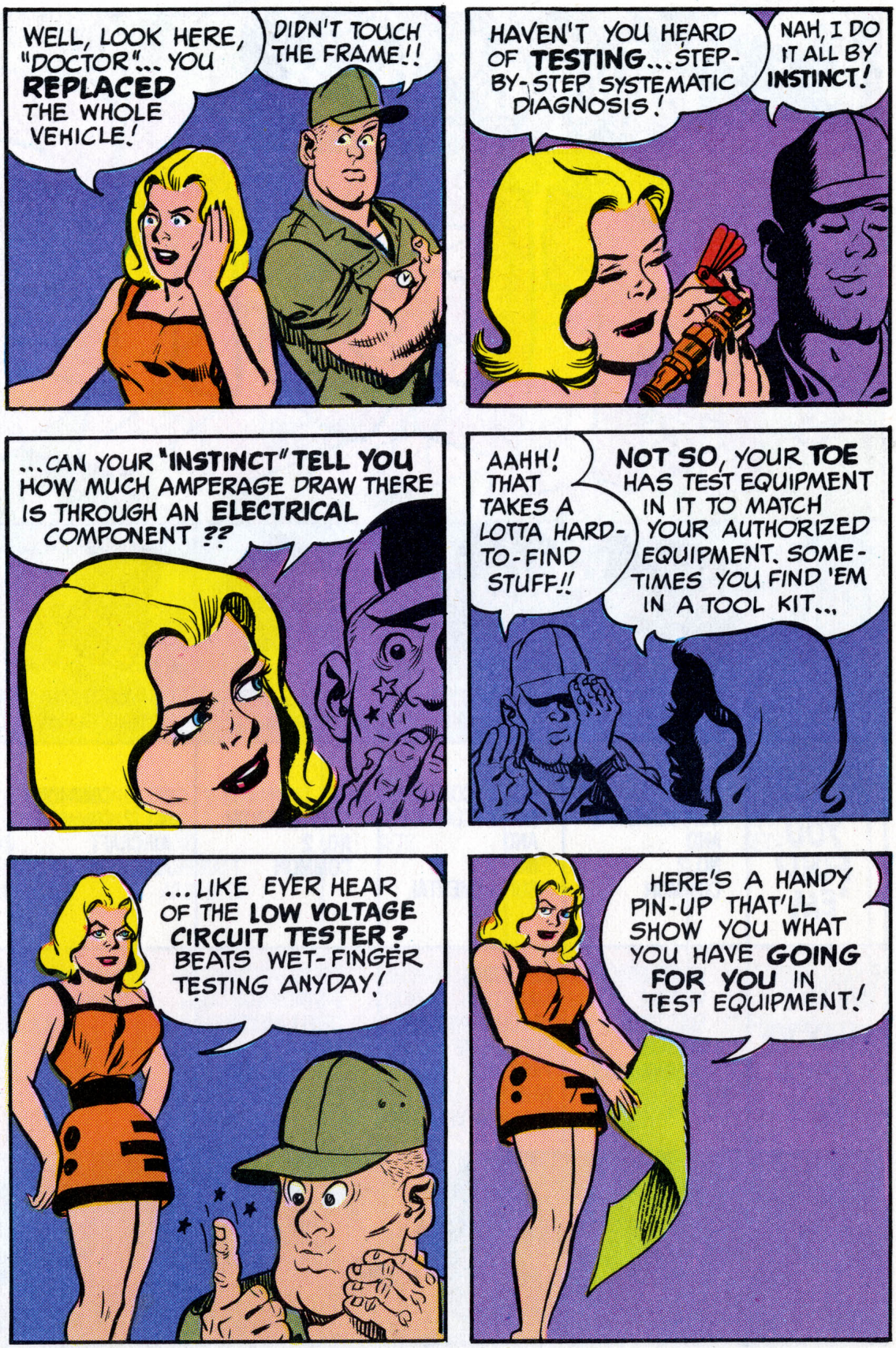
Here are the authorized "write-in" items on DA Form 12-31 for the Helicopter Armament Subsystems. Use page 2, Section I of the form.

7.62 MM Machine Gun XM27E1
40 MM Grenade Launcher
7.62 MM Gun XM41
30 MM Gun XM30

This 12-31 takes the same route as the original one. Companies, batteries, etc. should forward the form to the next higher headquarters. And don't forget your account number.

JOE'S
DOPE
TEST
BEFORE YOU
REPLACE
HELP!
HOLD ON!!
SOMETHING'S GONE WRONG WITH MY VEHICLE! WOULD YOU CHECK IT OUT AND FIX IT PLEASE? IT SEEMS TO BE IN THE ELECTRICAL SYSTEM. IN THE...
FEAR NOT, CONNIE RODD, I, "QUICK FIX" McDIX, WILL SAVE YOU!!
CONSIDER ME LIKE A DOCTOR, MY DEAR... I'LL HAVE IT PURRIN' LIKE A PUSSY!

HMM, NOW LEMME SEE... HMMMM.
IT COULD BE THE DISTRIBUTOR... WELL, I'LL JUST REPLACE IT AND SEE WHAT HAPPENS!
WHELLL...IT'S NOT THAT... SO, I'LL REPLACE THE PLUGS!
I'VE REPLACED THE STARTER SWITCH, BATTERY, CABLES AND THE REGULATOR... STILL NO GO... HMMMM.
LESSEE... AHH, NOW I'LL REPLACE THE GENERATOR.
LATER
?
STILL NO GO!


WELL, LOOK HERE, "DOCTOR"... YOU REPLACED THE WHOLE VEHICLE!
DIDN'T TOUCH THE FRAME!!
HAVEN'T YOU HEARD OF TESTING... STEP-BY-STEP SYSTEMATIC DIAGNOSIS!
NAH, I DO IT ALL BY INSTINCT!
...CAN YOUR "INSTINCT" TELL YOU HOW MUCH AMPERAGE DRAW THERE IS THROUGH AN ELECTRICAL COMPONENT ??
AAHH! THAT TAKES A LOTTA HARD-TO-FIND STUFF!!
NOT SO, YOUR TOE HAS TEST EQUIPMENT IN IT TO MATCH YOUR AUTHORIZED EQUIPMENT. SOMETIMES YOU FIND 'EM IN A TOOL KIT...
...LIKE EVER HEAR OF THE LOW VOLTAGE CIRCUIT TESTER? BEATS WET-FINGER TESTING ANYDAY!
HERE'S A HANDY PIN-UP THAT'LL SHOW YOU WHAT YOU HAVE GOING FOR YOU IN TEST EQUIPMENT!

JOE'S Dope Sheet

TESTER

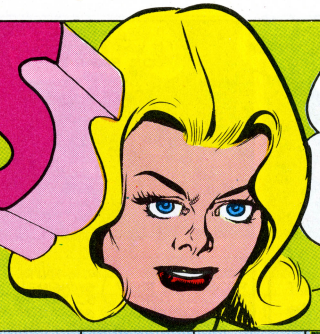
THE TESTER	TEST SET, GENERATOR AND VOLTAGE REGULATOR	TESTER, INTERNAL COMBUSTION ENGINE	TESTER SET, TACH-DWELL	LIGHT, IGNITION TIMING	MULTIME
WHERE YOU FIND 'EM	NO. 1 SUPPLEMENTAL AND NO. 2 COMMON	NO. 1 COMMON NO. 2 COMMON AND NO. 2 SUPPLEMENTAL	NO. 1 SUPPLEMENTAL NO. 2 COMMON	NO. 1 COMMON NO. 2 COMMON AIRCRAFT ABC SETS	NO. 1 SUPPLEME NO. 2 CO AIRCRAFT ABC SETS
WHAT THEY'RE USED FOR	WHEELED VEHICLE ELECTRICAL SYSTEM COMPONENTS	MEASURES MANIFOLD, VACUUM AND FUEL PUMP PRESSURE ON WHEELED AND TRACKED VEHICLES	TESTS DISTRIBUTOR DWELL-METER AND TACHOMETER (VEHICLES)	ENGINE TIMING	AIRCRAFT, AUTOMOTI AND ELEC ELECTRICA CIRCUITS

WE HAVE THE WORLD'S BEST EQ

IF YOU WANT TO DISPLAY THIS CENTERPIECE ON YOUR BUL

JOE'S Dope Sheet

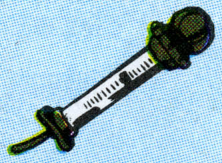
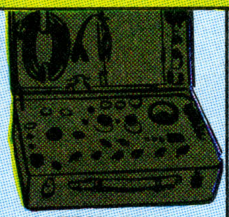
THE TESTERS



THE TESTER	TEST SET, GENERATOR AND VOLTAGE REGULATOR	TESTER, INTERNAL COMBUSTION ENGINE	TESTER SET, TACH-DWELL	LIGHT, IGNITION TIMING	MULTIMETER	TESTER, CYLINDER COMPRESSION	TESTER, BATTERY ELECTROLYTE SOLUTION	TESTER MASTER COMPASS, SWINGING	TEST SET, ELECTRON TUBE	DYE PENETRANT KIT
WHERE YOU FIND 'EM	NO. 1 SUPPLEMENTAL AND NO. 2 COMMON	NO. 1 COMMON NO. 2 COMMON AND NO. 2 SUPPLEMENTAL	NO. 1 SUPPLEMENTAL NO. 2 COMMON	NO. 1 COMMON NO. 2 COMMON AIRCRAFT ABC SETS	NO. 1 SUPPLEMENTAL NO. 2 COMMON AIRCRAFT ABC SETS	NO. 1 COMMON NO. 2 COMMON AND AIRCRAFT ABC SETS	NO. 1 COMMON NO. 2 COMMON AND AIRCRAFT ABC SETS	AIRCRAFT ABC SETS	TOE	AIRCRAFT ABC SETS
WHAT THEY'RE USED FOR	WHEELED VEHICLE ELECTRICAL SYSTEM COMPONENTS	MEASURES MANIFOLD, VACUUM AND FUEL PUMP PRESSURE ON WHEELED AND TRACKED VEHICLES	TESTS DISTRIBUTOR DWELL-METER AND TACHOMETER (VEHICLES)	ENGINE TIMING	AIRCRAFT, AUTOMOTIVE AND ELECTRONIC ELECTRICAL CIRCUITS	AUTOMOTIVE AND AIRCRAFT ENGINE CYLINDERS	AUTOMOTIVE AND AIRCRAFT BATTERIES	AIRCRAFT COCKPIT COMPASS	ELECTRONIC TUBES	AIRCRAFT FRAMES AND COMPONENTS

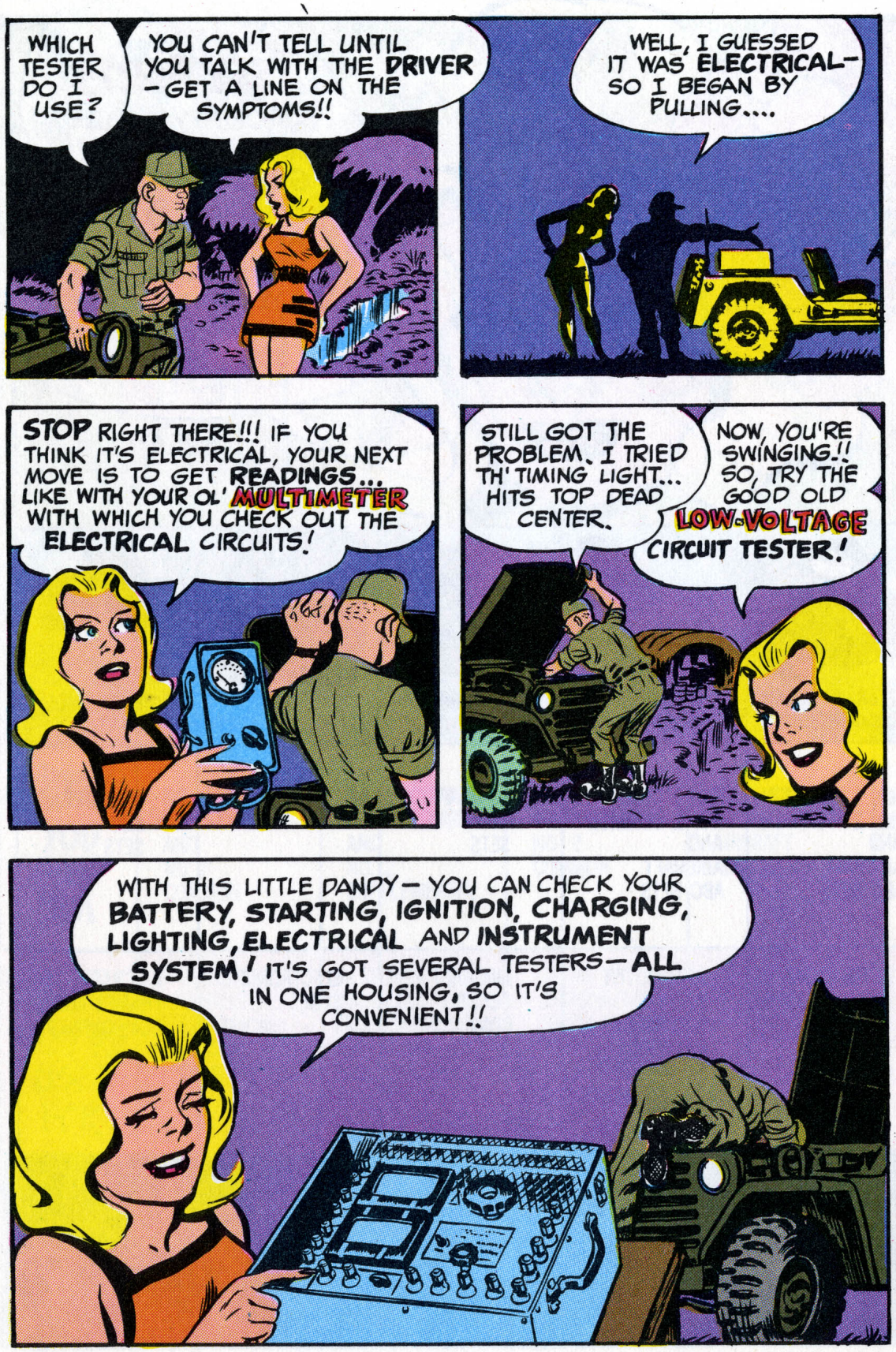
WE HAVE THE WORLD'S BEST EQUIPMENT ... *Take care of it*

IF YOU WANT TO DISPLAY THIS CENTERPIECE ON YOUR BULLETIN BOARD, OPEN STAPLES, LIFT IT OUT AND PIN IT UP.

TER	TESTER, CYLINDER COMPRESSION	 TESTER, BATTERY ELECTROLYTE SOLUTION	TESTER MASTER COMPASS, SWINGING	 TEST SET, ELECTRON TUBE	DYE PENETRANT KIT
NTAL MMON	NO. 1 COMMON NO. 2 COMMON AND AIRCRAFT ABC SETS	NO. 1 COMMON NO. 2 COMMON AND AIRCRAFT ABC SETS	AIRCRAFT ABC SETS	TOE	AIRCRAFT ABC SETS
VE TRONIC L	AUTOMOTIVE AND AIRCRAFT ENGINE CYLINDERS	AUTOMOTIVE AND AIRCRAFT BATTERIES	AIRCRAFT COCKPIT COMPASS	ELECTRONIC TUBES	AIRCRAFT FRAMES AND COMPONENTS

QUIPMENT ... *Take care of it*

LETIN BOARD, OPEN STAPLES, LIFT IT OUT AND PIN IT UP.


WHICH TESTER DO I USE?
YOU CAN'T TELL UNTIL YOU TALK WITH THE DRIVER - GET A LINE ON THE SYMPTOMS!!
WELL, I GUESSED IT WAS ELECTRICAL - SO I BEGAN BY PULLING....
STOP RIGHT THERE!!! IF YOU THINK IT'S ELECTRICAL, YOUR NEXT MOVE IS TO GET READINGS... LIKE WITH YOUR OL' MULTIMETER WITH WHICH YOU CHECK OUT THE ELECTRICAL CIRCUITS!
STILL GOT THE PROBLEM. I TRIED TH' TIMING LIGHT... HITS TOP DEAD CENTER.
NOW, YOU'RE SWINGING!! SO, TRY THE GOOD OLD LOW-VOLTAGE CIRCUIT TESTER!
WITH THIS LITTLE DANDY - YOU CAN CHECK YOUR BATTERY, STARTING, IGNITION, CHARGING, LIGHTING, ELECTRICAL AND INSTRUMENT SYSTEM! IT'S GOT SEVERAL TESTERS - ALL IN ONE HOUSING, SO IT'S CONVENIENT!!

HEY, CONNIE... I JUST DISCOVERED SOMETHING!!
IT'S ABOUT TIME...
WHAT?
THE TROUBLE WAS JUST A LOOSE CONNECTOR!
FIGURES... SO, YOU REPLACED A GOOD GENERATOR AND A CARLOAD OF OTHER GOOD WORKING PARTS.
...ALL THE WHILE YOU COULD HAVE FIXED IT WITH A TURN OF THE WRENCH!!
SO, I DO IT THE HARD WAY!! WHAT'S THE SWEAT?
...YOU DID MORE THAN WASTE TIME AND MONEY! ... YOU FOULED UP THE WHOLE SUPPLY SYSTEM!
ME?
FOR ONE THING— UP AT SUPPLY, WHERE MACHINES AND PLANNERS HAVE TO PREDICT WHAT SUPPLIES YOU'LL NEED MONTHS FROM NOW!... YOU THROW THEM FALSE INFO!
ME??
YOU!!... WHICH WOULDN'T BE SO BAD. BUT, WHEN HUNDREDS OF GUYS LIKE YOU DO IT... IT HITS 'EM LIKE A RUN ON THE BANK!

YOU MEAN, LIKE THEY FIGURE A PART SHOULD LAST SO LONG... AND, WHEN THE DRAW GETS HEAVY THEY RUN OUT!
YOU SAID IT, McDIX!
AHHH, SO, LET TH' OTHER OUTFITS WORRY 'LONG AS I GET MINE!
HEY, McDIX, SADDLE UP YOUR DEUCE 'N' A HALF. WE GOTTA JOB UP THE LINE!
OK, BUT DRAW ME A NEW GENERATOR. THE ONE ON IT NOW IS SHOT... SOON'S I PUT IT IN WE'RE OFF!!
SORRY ABOUT THAT! SUPPLY IS ALL OUT ON THAT ITEM!!
WHAT? THEN I'M DEADLINED!!
THE SUPPLY PEOPLE CLAIM THERE'S BEEN AN EPIDEMIC OF GUYS SENDING BACK GOOD GENERATORS — THEIR STOCK-LEVEL'S AT ZILCH.
NOW, YOU WERE SAYING SOMETHING ABOUT LETTING THE OTHER GUYS WORRY, McDIX!!??
MUMBLE MUMBLE GRUMBLE MUMBLE

BARE ESSENTIALS ONLY

You say your Huey (UH-1B, D) engine fuel filter assembly, FSN 2915-011-1518, is clogged up with gunk and you need to put in a new filter?

Hold one before you order the whole filter assembly. The assembly was only for modification kits and it'll cost Uncle 100 smackers!

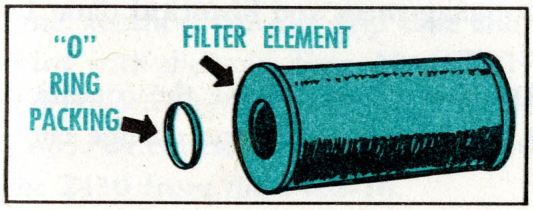
All you need is the $3.37 replaceable filter element and the O-ring packings. These two items come in filter assembly repair kit, FSN 2945-019-0280, P/N 204-2490-1.

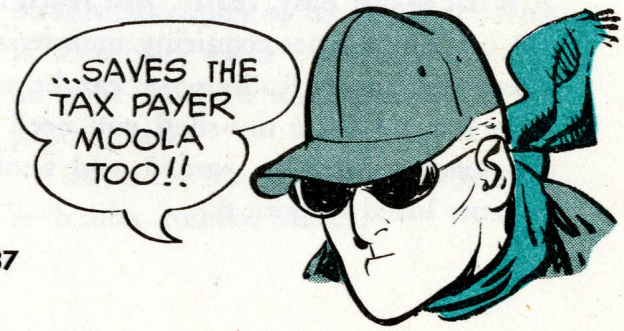
This kit can also be used to replace the external filter of the transmission oil system.

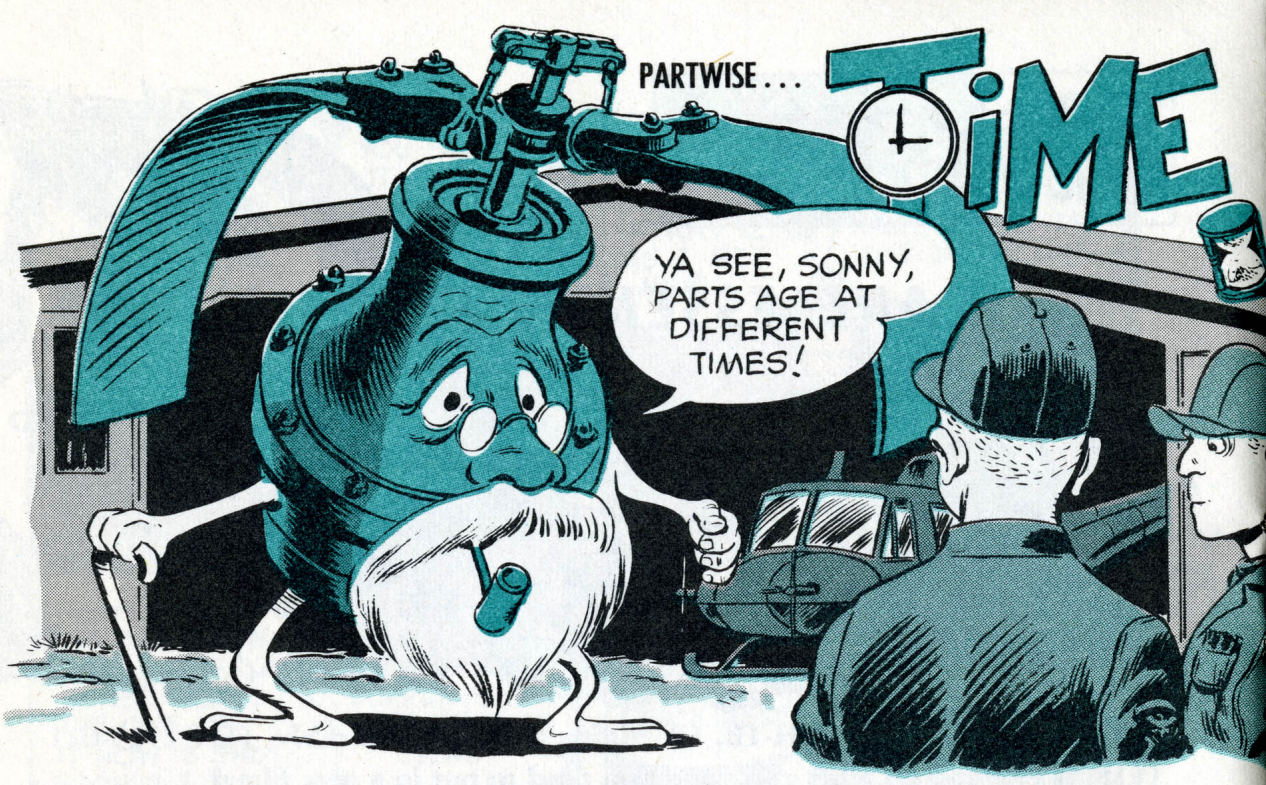
	FSN	Item	Quantity
(a)	5330-250-0236	Packing	2
(b)	5330-291-3078	Packing	1
(c)	5330-618-1670	Packing	2
(d)	5330-726-4153	Packing	1
(e)	P/N 204-040-760-13	Element	1

Use items c, d, and e when replacing the transmission oil filter element, and items a, b, and e on your engine fuel filter replacement jobs.

Where's this kit listed? Right in TM 55-1520-210-20P (Dec 66), fig 256 and fig 434 . . . in a special note, to boot!





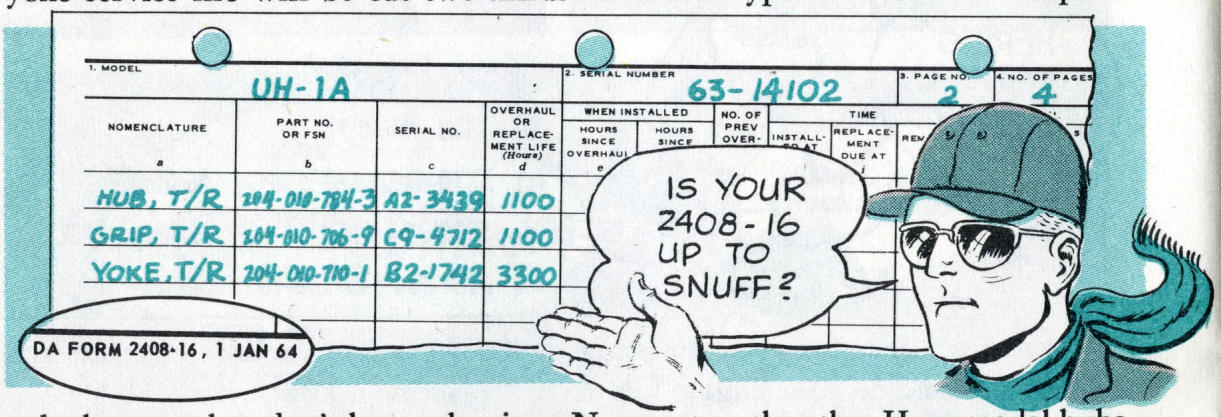


You wouldn't throw away a part that was only partly used up, would you? 'Course not . . . moola down the drain!!

But you'll be doing just that unless you keep the DA Form 2408-16 for your bird up-to-snuff on time-change components.

Take the tail rotor hub on the Huey (UH-1A) as an example.

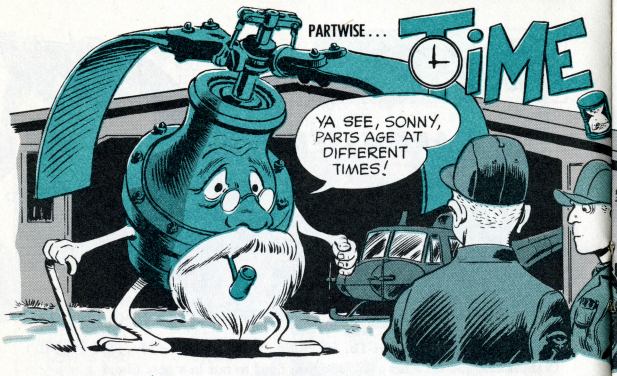
TM 55-1520-211-20 gives you an overhaul time of 1100 hours. But the yoke has a retirement time of 3300 hours. So if you keep only the hub time the yoke service life will be cut two-thirds. Overhaul types will have to scrap the



yoke because they don't know the time. No sweat on the other Huey model hubs.

What to do? Easy, really. Just reach for your copy of TB AVN 23-65 (16 Jan 67) on components requiring maintenance management and historical data. In a few minutes of reading you can be an expert.

In a nutty little nut-shell you need a DA Form 2408-16 for the condition components listed in para 5 and another 2408-16 for the time change components listed in para 6.

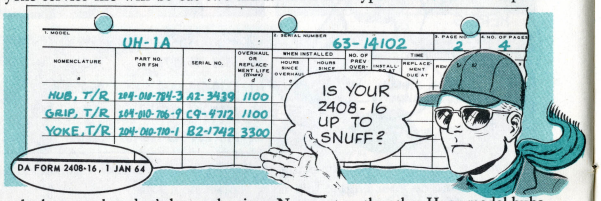


You wouldn't throw away a part that was only partly used up, would you? 'Course not . . . moola down the drain!!

But you'll be doing just that unless you keep the DA Form 2408-16 for your bird up-to-snuff on time-change components.

Take the tail rotor hub on the Huey (UH-1A) as an example.

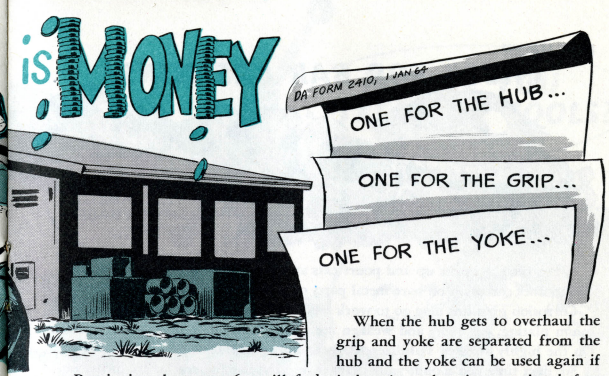
TM 55-1520-211-20 gives you an overhaul time of 1100 hours. But the yoke has a retirement time of 3300 hours. So if you keep only the hub time the yoke service life will be cut two-thirds. Overhaul types will have to scrap the



yoke because they don't know the time. No sweat on the other Huey model hubs.

What to do? Easy, really. Just reach for your copy of TB AVN 23-65 (16 Jan 67) on components requiring maintenance management and historical data. In a few minutes of reading you can be an expert.

In a nutty little nut-shell you need a DA Form 2408-16 for the condition components listed in para 5 and another 2408-16 for the time change components listed in para 6.



By zipping thru para 6 you'll find the tail rotor hub, grip and yoke part numbers listed on pages 32 and 34. Here are the Huey part numbers, for all models, that get listed on your 2408-16.

Hub P/N	Grip P/N	Yoke P/N
204-010-784-3	204-010-706-9	204-010-710-1
204-010-703-17	204-010-706-11	204-010-781-1
204-010-703-21		204-010-781-5
204-011-701-7		204-010-781-9
204-011-701-11		
204-011-701-13		
204-011-701-21		
204-011-701-23		

When the overhaul time rolls 'round and you ship the hub back to support be sure you fill out and send along 3 DA Form 2410's—one with the hub time, another with the grip time and a third with the yoke time. No joke . . . this poop is right in para 4 of TB AVN 23-65. Of course, you get the poop for the 2410 from the 2408-16.

When the hub gets to overhaul the grip and yoke are separated from the hub and the yoke can be used again if it doesn't reach retirement time before the next hub overhaul.

Go ahead, pick up the log book on your bird and see if you've got the hub components listed on the 2408-16.

What's that—you find the hub listed but not the grip and yoke? No sweat!

To reconstruct missing records eye para 10b of TB 55-1500-300-25 (Mar 67) on aircraft component replacement and re-use procedures. If you still don't make out, contact AVCOM, ATTN: AMSAV-FMM.

Of course this 2410 business is a two-way street. The overhaul types also are supposed to ship 3 2410's to the field . . . hub, yoke, grip.

So, when a hub comes to you from depot, general support or direct support be sure all copies of the 2410 are with it. You can't enter "hours since new" on your 2408-16 unless you have the paper work.

Get on the horn if you have to, man—hubba, hubba, hubba!

2410 is MONEY

By zipping thru para 6 you'll find the tail rotor hub, grip and yoke part numbers listed on pages 32 and 34. Here are the Huey part numbers, for all models, that get listed on your 2408-16.

Hub P/N	Grip P/N	Yoke P/N
204-010-784-3 204-010-703-17 204-010-703-21 204-011-701-7 204-011-701-11 204-011-701-13 204-011-701-21 204-011-701-23	204-010-706-9 204-010-706-11	204-010-710-1 204-010-781-1 204-010-781-5 204-010-781-9

When the overhaul time rolls 'round and you ship the hub back to support be sure you fill out and send along 3 DA Form 2410's—one with the hub time, another with the grip time and a third with the yoke time. No joke . . . this poop is right in para 4 of TB AVN 23-65. Of course, you get the poop for the 2410 from the 2408-16.

When the hub gets to overhaul the grip and yoke are separated from the hub and the yoke can be used again if it doesn't reach retirement time before the next hub overhaul.

Go ahead, pick up the log book on your bird and see if you've got the hub components listed on the 2408-16.

What's that—you find the hub listed but not the grip and yoke? No sweat!

To reconstruct missing records eye para 10b of TB 55-1500-300-25 (Mar 67) on aircraft component replacement and re-use procedures. If you still don't make out, contact AVCOM, ATTN: AMSAV-FMM.

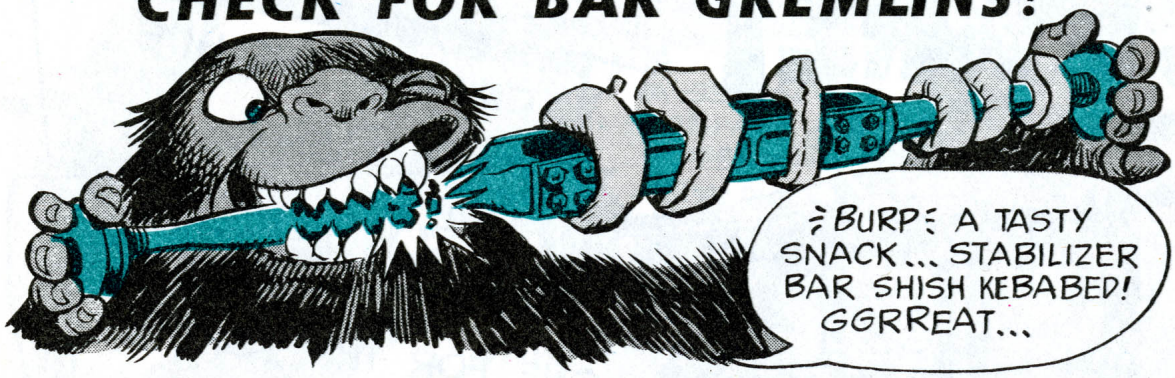
Of course this 2410 business is a two-way street. The overhaul types also are supposed to ship 3 2410's to the field . . . hub, yoke, grip.

So, when a hub comes to you from depot, general support or direct support be sure all copies of the 2410 are with it. You can't enter "hours since new" on your 2408-16 unless you have the paper work.

Get on the horn if you have to, man—hubba, hubba, hubba!

RAINY SEASON?

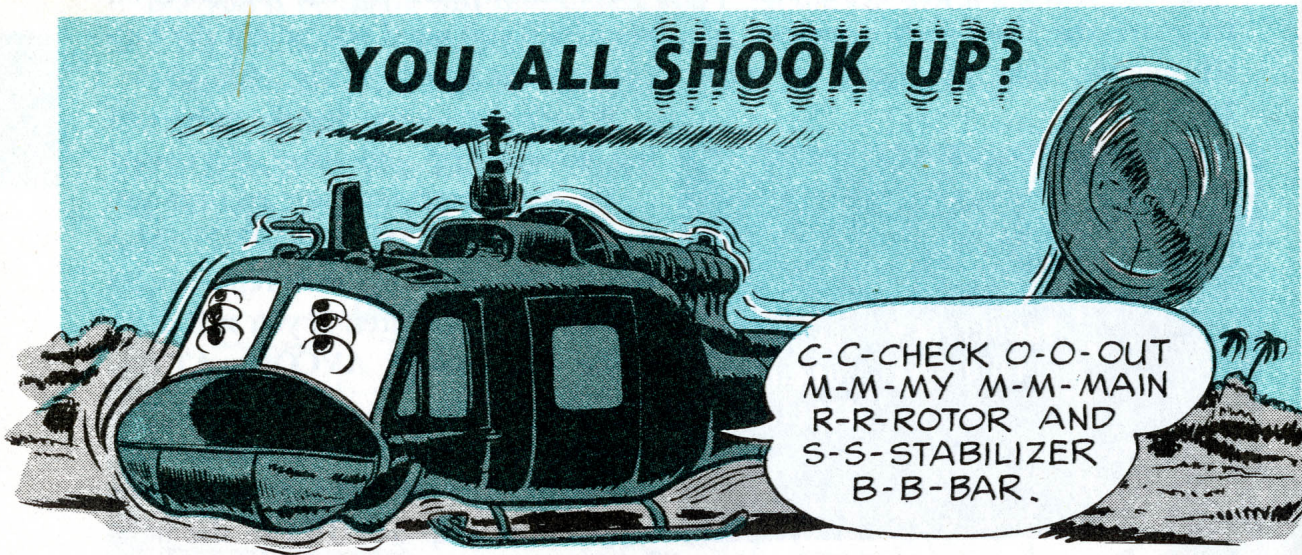
CHECK FOR BAR GREMLINS!



When the sky opens up and pours cats and dogs, plant life goes on a spree—and so does corrosion on bare metal parts of your Huey (UH-1).

Corrosion gremlins may go to work on the stabilizer bar, break down the cadmium plating, eat away and weaken metal to the point of producing cracks. On the highly stressed stabilizer bar cracks lead to crack-ups!

So, next time you mount your charger, eye the bar for cracks 2.1 inches outboard from the tie-rod retaining-bolt. If you spot any cracks, the stabilizer bar assembly gets replaced, pronto!

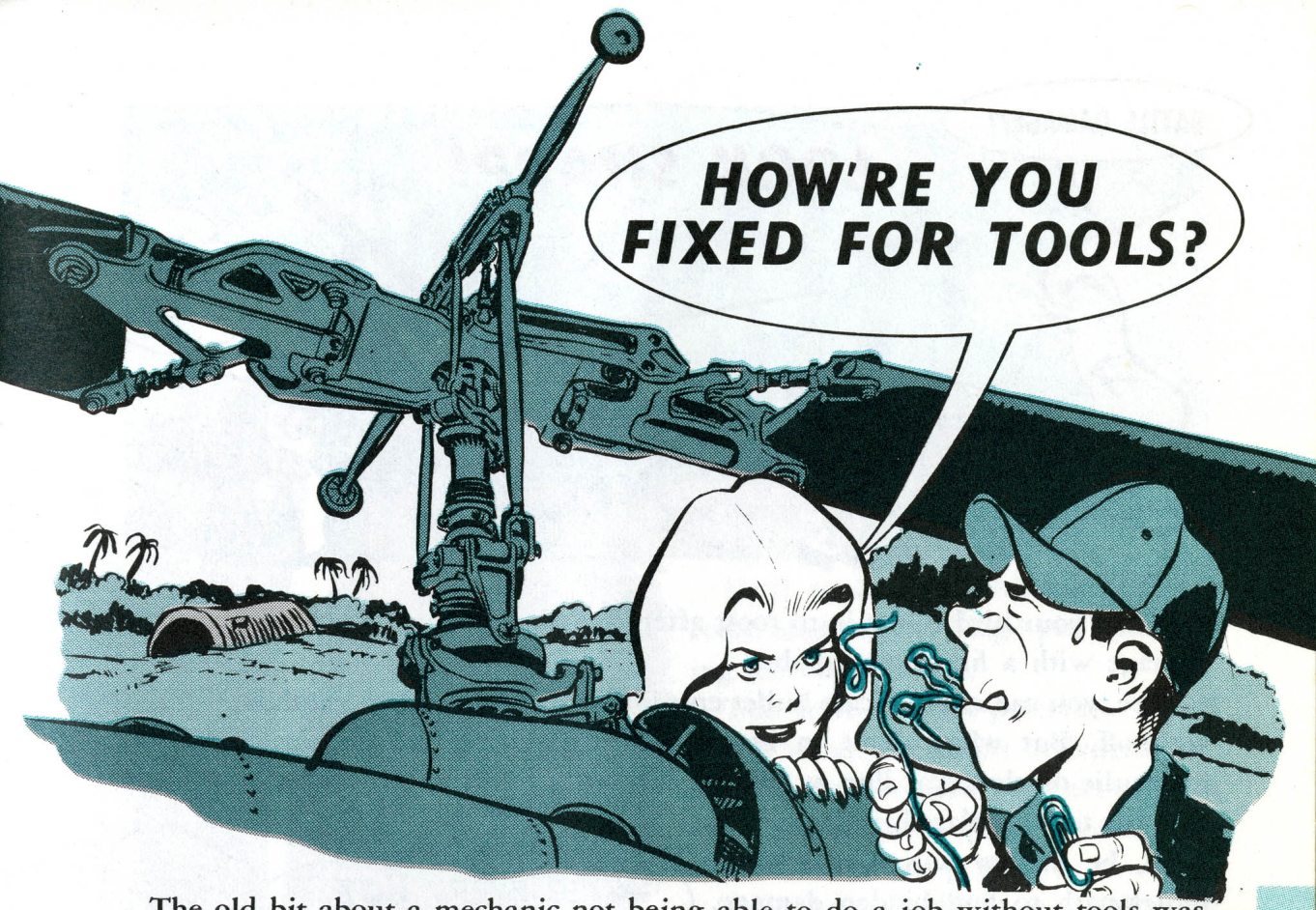


Vibration is something fling-wing mechanics learn to live with—when it doesn't get out of hand.

F'rinstance, you can tell easily enough if trouble's a-brewing with the main grip bearing in your Charlie-model Huey (UH-1C).

Just level the main rotor and stabilizer bar.

Next, move the bar in either direction. The blade grips should change pitch smoothly and freely. If you get a bind—or hear the bearing grate—better hustle the bird off to direct support for a thorough checkup. It'll save time, parts . . . and loose bicuspids.



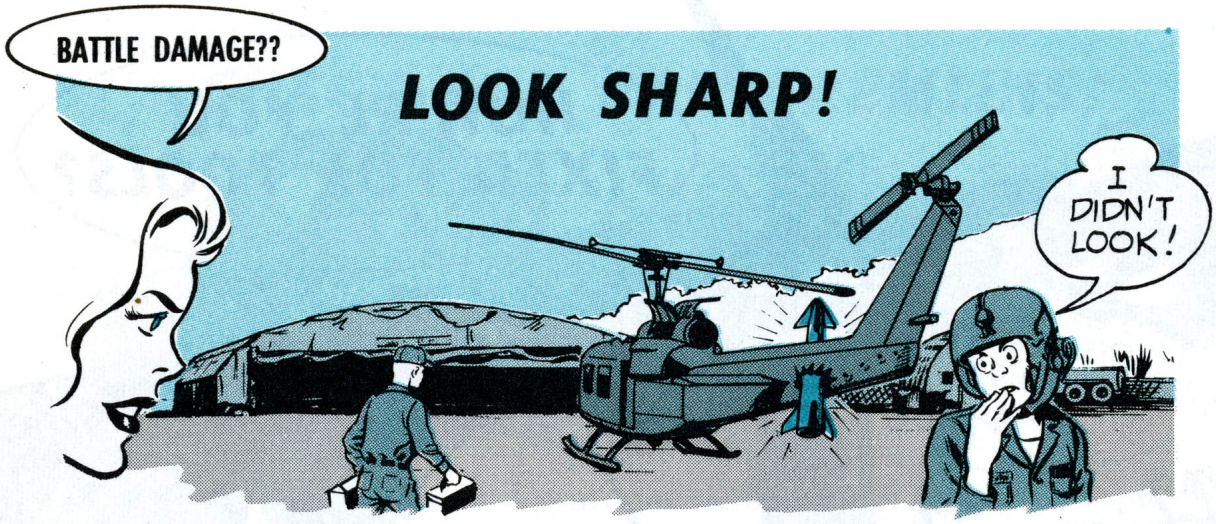
The old bit about a mechanic not being able to do a job without tools was never truer than on the Huey (UH-1C) 540 rotor system.

It's a capital idea to inventory your special tools with TM 55-1520-210-20P (Dec 66) and TM 55-1520-210-35P-2 (Jan 67) to make sure you have the new tools needed to maintain your Charlie Model 540 rotor system.

Requisition any missing tools—you bet!

THIN SOCKETS ARE HERE

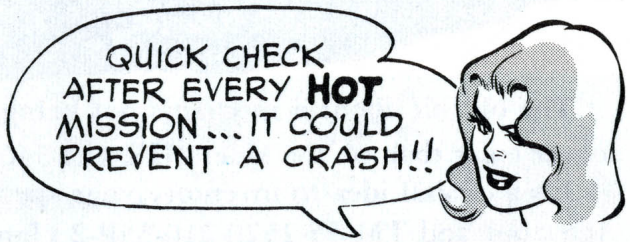
Grab that spanking new Aircraft General Mechanic's Tool Kit and make yourself a note. FSN 5120-914-9205 gets you a 7/8-in spark plug socket; FSN 5120-914-9120 does the same for the 13/16-in size. SC 5180-93-CL-A01 (Sep 66) was put together before FSN's for these 2 sockets became available. So check out those in your kit to see if you've got 'em.



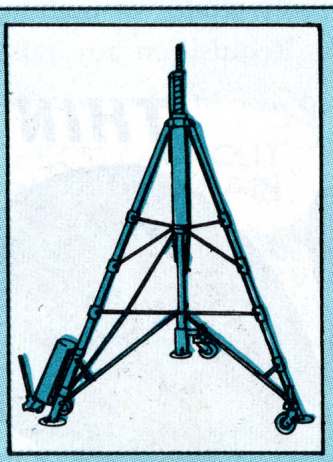
When your bird comes in to roost after a mission be sure you check for battle damage with a fine-tooth comb.

Sure, you can easily locate bullet entrance and exit holes and get them patched right-off. But what about in between? If a hunk of lead creases a fuel, oil, hydraulic or electrical line or control cables and rods you've got a weak part that has to be replaced, pronto.

So, be mighty sure you trace a bullet path to find hidden damage. You wouldn't want a weak part to let go over Charlie territory.



OLD JACK -- NEW PUB



Maybe you overlooked it, but DA Pam 310-4 lists a new pub for Jack, hydraulic tripod, Type B6, P/N 50J25178, FSN 1730-516-2019.

This 10-ton heavy was originally issued only to Shawnee (CH-21) and Army Mule (CH-25) helicopter outfits, but other units may have inherited it.

The pub for this old maintenance standby is TM 55-1730-208-15 (Mar 66). It replaces Air Force T.O. 35A2-2-11-1 and -4 (Dec 57).

STOP RUSTY!

Rusty Corrosion is a sneaky character.

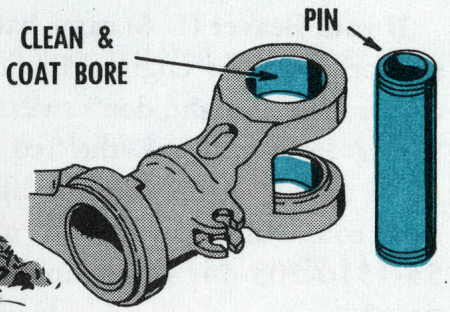
He'll settle in a Chinook (CH-47) rotor blade socket hinge pin hole during the rainy season.

The hole is shot-peened—which means water can collect in depressions. The result is corrosion pits that can lead to fatigue cracks—maybe a crack-up.

How do you stop Rusty?

Easy. At the PMP nearest 300 hours since the blades were manufactured, overhauled or inspected last, take them off and eye each socket bore for rust and fretting corrosion marks. This special inspection is called for in TM 55-1520-209-20, Ch 3 (3 Aug 66).

Clean out any rust with corrosion removing compound, MIL-10578, Type 3, FSN 6850-201-1218, during the big look . . . and to help keep rust from getting started again, coat the bore with anti-seize compound, MIL-A-907C, JAN-A-669 or TT-A-580.



TORQUE CHECK

Dear Windy,

Here 'n' there the TM's say to "check" torque on a screw, bolt or nut.

Some guys check torque on nuts by cutting the safety, setting the wrench at the minimum torque called for and making with the muscle. If the nut doesn't turn, or if there's a click, they figure it's got the proper torque.

Others say that to check torque you cut the safety, back the nut off a few turns, then tighten to the proper torque value. In fact, they re-torque the nut.

What say you, Windy?

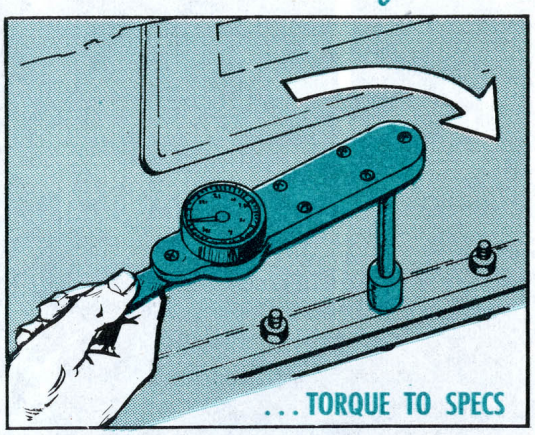
SSG L. E. M.

Dear Sergeant L. E. M.,

It's nigh-on impossible to check the torque value of a tightened nut because torque indication is good only when the screw, bolt, or nut is moving. You have to start from scratch.

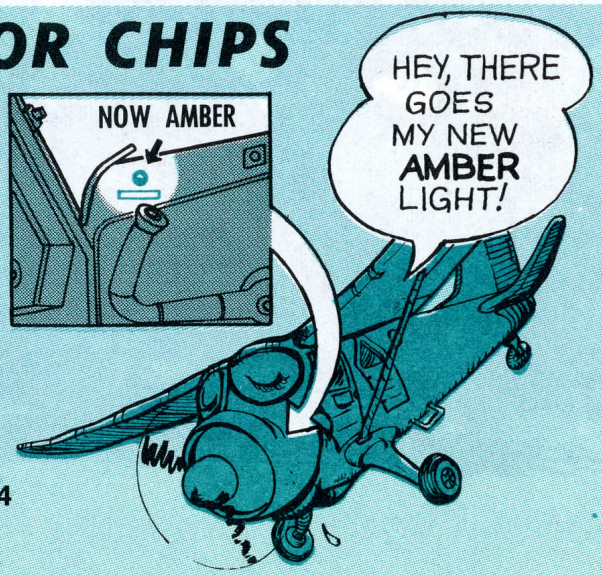
So, to check torque, the nut must be re-torqued. Just back off on the nut to below the minimum torque and then bring it back to the torque given in the maintenance pub.

Windy



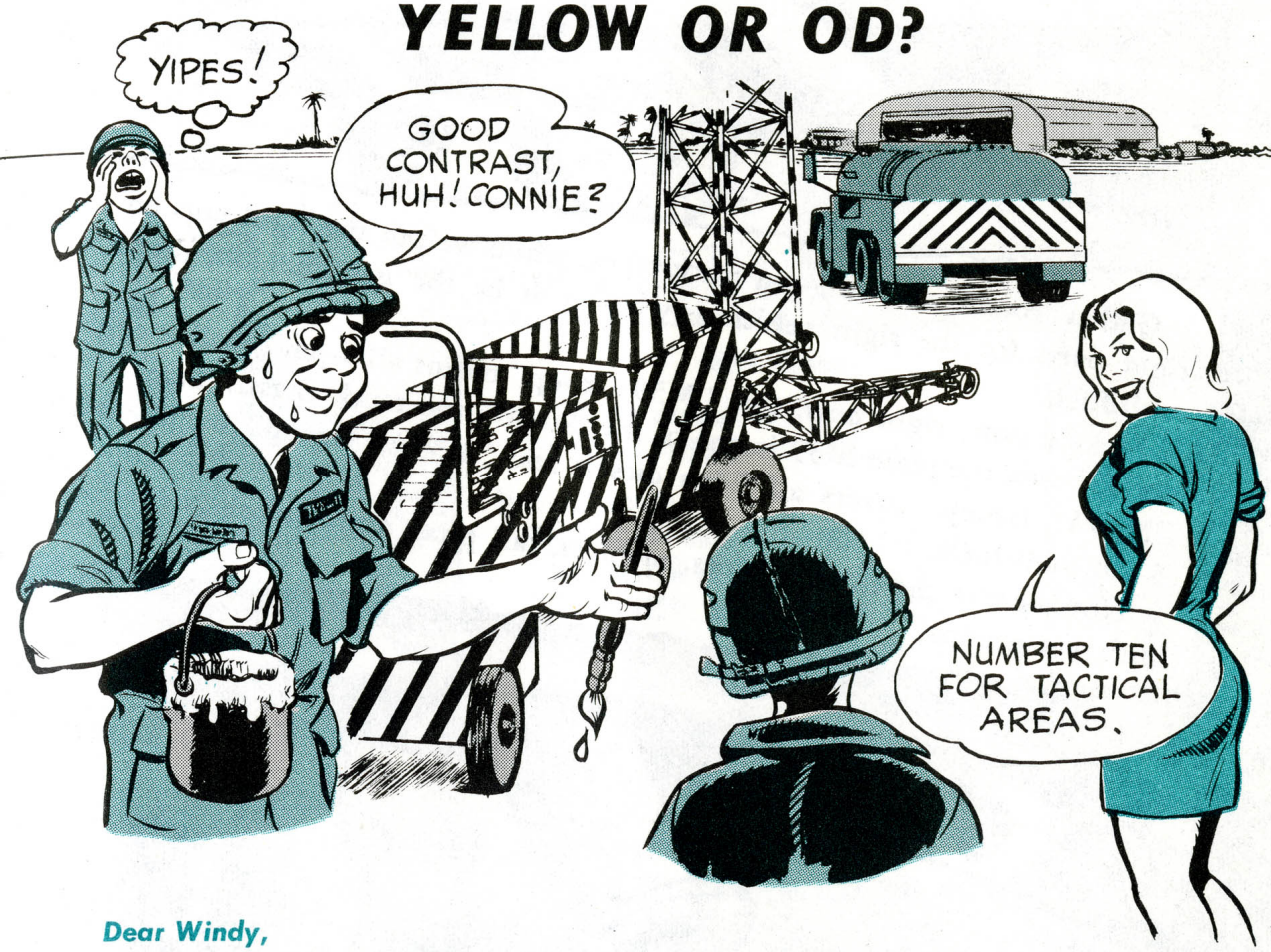
AMBER FOR CHIPS

If your Beaver (U-6) came back from support with an engine chip detector amber caution light, don't sweat it. The amber light replaces the red one to make all bird chip detector lights the same color. Ch 1 (14 Apr 66) to MWO 55-1510-203-34/4 authorized the switch.



FLIGHT LINE EQUIPMENT . . .

YELLOW OR OD?



Dear Windy,

Para 29a, TM 55-405-8 (Sep 66) says that ground equipment used on landing strips, taxiways, perimeter roads, and aircraft flight areas should be painted yellow for safety reasons.

Does this go for all areas?

SSG C. G. C.

Dear Sergeant C. G. C.,

Nosir-e-e-e, depends on whether you're in a tactical or non-tactical area.

Para 17d, sect V, AR 746-5 (Apr 66) Color and Marking of Army Materiel has the scoop. It authorizes materials handling equipment including aircraft towing, fuel and oil dispensing vehicles used in **non-tactical** areas to be painted gloss yellow No. 13538, Mil-E-7729.

If you're in a **tactical** unit this equipment should be painted semi-gloss olive drab No. X24087, Mil-E-52227.

When you make with the yellow, para 23 of the AR says that certain vehicles and equipment may be painted with contrasting stripes to make 'em more readily visible to pilots and drivers of other vehicles.

The AR also spells out what color of contrasting paint you'll use on O D or other dark colored vehicles, or on yellow or light colored ones.

Windy

G744-SERIES 5-TON TRUCKS . . .

EXHAUST

Gather 'round, all you 5-ton truck-types, while we put the right tags on the right parts for the right vehicle—whether it be the gasoline job, diesel or multifuel.

Make a note, right now, that "M39 Group" means all 5-ton gasoline engine trucks, even the plain M39 is one of the dozen 5-ton truck chassis. Same way, "M39A1 Group" covers all 5-ton diesels and "M39A2 Group" wraps up all 5-ton multifuels.

Now here're the exhaust pipes, mufflers, tail pipes and extensions for the 3 different groups:

M39A1 Group

Pipe, Exhaust Front (from turbocharger):
FSN 2990-056-4798 — for M52A1, M54A1

Pipe, Exhaust Tail (between front pipe and extension pipe):
FSN 2990-972-2611 — for M52A1
FSN 2990-972-2594 — for M54A1

Pipe, Exhaust Tail Extension:
FSN 2990-972-2610 — for M52A1, M54A1

M39A2 Group

LDS 465-1 and LDS 465-1A engine, modified under MWO 9-2320-211-20/10 (coming out soon).

Pipe, Exhaust (from turbocharger or adapter):
FSN 2990-944-6981 — for all models

Pipe, Exhaust Extension (vertical stack):
FSN 2990-925-3968 — for all models

G744-SERIES 5-TON TRUCKS . . .

EXHAUST SYSTEM PARTS

Gather 'round, all you 5-ton truck-types, while we put the right tags on the right parts for the right vehicle — whether it be the gasoline job, diesel or multifuel.

Make a note, right now, that "M39 Group" means all 5-ton gasoline engine trucks, even the plain M39 is one of the dozen 5-ton truck chassis. Same way, "M39A1 Group" covers all 5-ton diesels and "M39A2 Group" wraps up all 5-ton multifuels.

Now here're the exhaust pipes, mufflers, tail pipes and extensions for the 3 different groups:

M39A1 Group

Pipe, Exhaust Front (from turbocharger):
FSN 2990-056-4798 — for M52A1, M54A1

Pipe, Exhaust Tail (between front pipe and extension pipe):
FSN 2990-972-2611 — for M52A1
FSN 2990-972-2594 — for M54A1

Pipe, Exhaust Tail Extension:
FSN 2990-972-2610 — for M52A1, M54A1

M39A2 Group

LDS 465-1 and LDS 465-1A engine, modified under MWO 9-2320-211-20/10 (coming out soon).

Pipe, Exhaust (from turbocharger or adapter):
FSN 2990-944-6981 — for all models

Pipe, Exhaust Extension (vertical stack):
FSN 2990-925-3968 — for all models

M39 Group

Pipe, Exhaust, manifold to muffler:
FSN 2990-734-8834 — for all models

Muffler, Exhaust:
FSN 2990-734-8829 — for M39, M40, M40C, M41, M51, M54, M55, M61, M62, M63, M139, M139C, M139D, M139F, M543
FSN 2990-294-2257 (flame and spark arrestor) — for M52, M63C, M246

Pipe, Exhaust Tail, muffler to extension:
FSN 2990-591-7696 — for M55, M63, M63C, M139, M246
FSN 2990-741-1093 — for M40, M54
FSN 2990-734-8839 — for M39, M41, M51, M52, M61
FSN 2990-385-7997 — for M139C, M139D, M139F
FSN 2990-741-1096 — for M62, M543, M40C

Pipe, Exhaust Tail Extension:
FSN 2990-649-9484 — for M52, M63C, M246
FSN 2990-040-2333 — for M39, M40, M40C, M41, M51, M54, M55, M61, M62, M63, M139, M139C, M139D, M139F, M543

M39 Group

Pipe, Exhaust, manifold to muffler:
FSN 2990-734-8834 — for all models

Muffler, Exhaust:
FSN 2990-734-8829 — for M39, M40, M40C, M41, M51, M54, M55, M61, M62, M63, M139, M139C, M139D, M139F, M543
FSN 2990-294-2257 (flame and spark arrestor) — for M52, M63C, M246

Pipe, Exhaust Tail, muffler to extension:
FSN 2990-591-7696 — for M55, M63, M63C, M139, M246
FSN 2990-741-1093 — for M40, M54
FSN 2990-734-8839 — for M39, M41, M51, M52, M61
FSN 2990-385-7997 — for M139C, M139D, M139F
FSN 2990-741-1096 — for M62, M543, M40C

Pipe, Exhaust Tail Extension:
FSN 2990-649-9484 — for M52, M63C, M246
FSN 2990-040-2333 — for M39, M40, M40C, M41, M51, M54, M55, M61, M62, M63, M139, M139C, M139D, M139F, M543

M39A2-SERIES TRUCK . . .

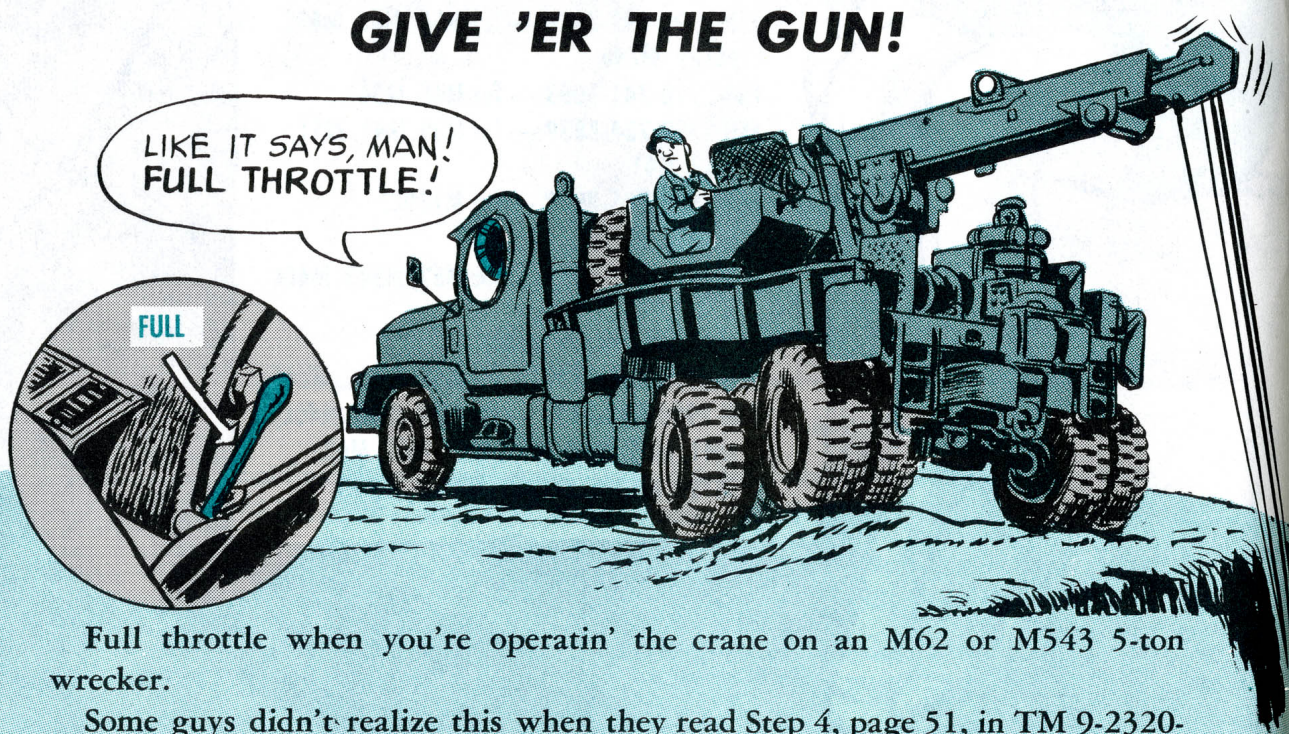
SMOKING TOO MUCH?

Troublesome exhaust smoke from an M52A2 or other M39A2-series multifuel 5-ton truck can be cut by changing the fuel injector nozzles—from the original 1-holers to 2-holers on the LDS-465-1 engine.

MWO 9-2815-210-30/2 (Dec 66) tells how your support can replace the 1-hole nozzles with the type nozzles used in 2½-ton multifuel engine trucks.

M62, M543 5-TON WRECKER . . .

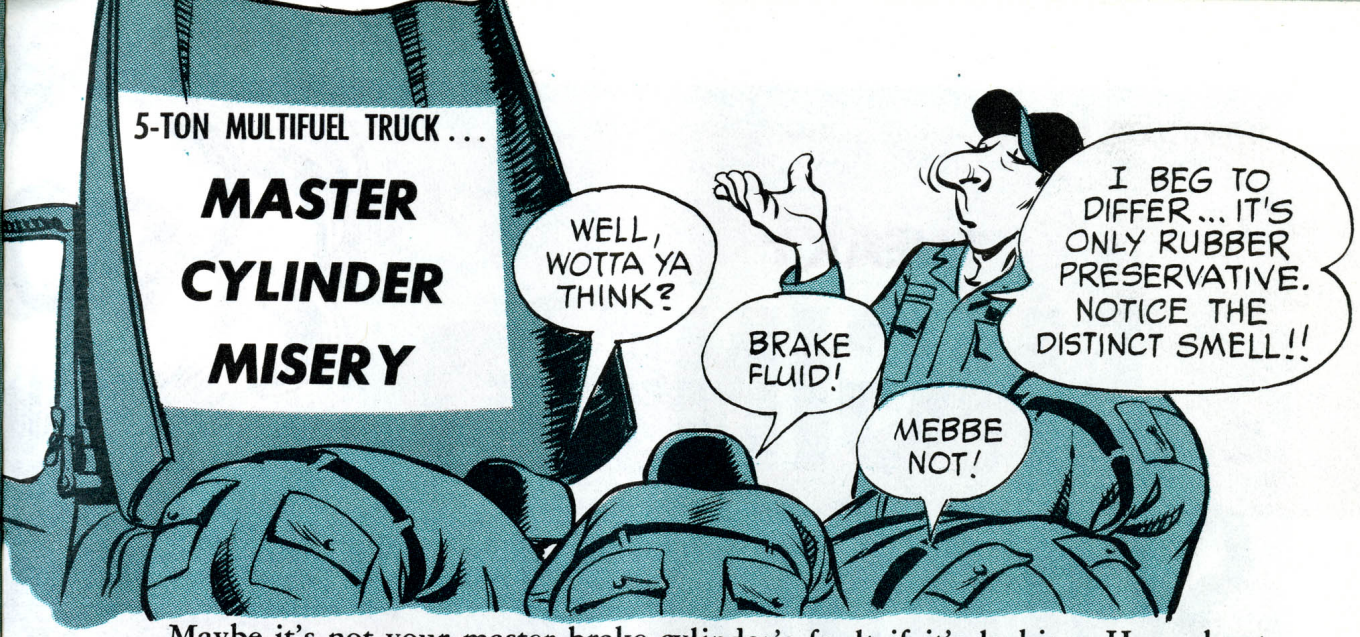
GIVE 'ER THE GUN!



Full throttle when you're operatin' the crane on an M62 or M543 5-ton wrecker.

Some guys didn't realize this when they read Step 4, page 51, in TM 9-2320-211-10. So the hydraulic pump didn't run fast enough to open the vanes all the way. The vanes got to chattering, and pretty soon the pump went bust.

Now there's no mistaking what the TM means, because, in Ch 2 (Jun 64), it says: "Pull throttle control valve to full open position."

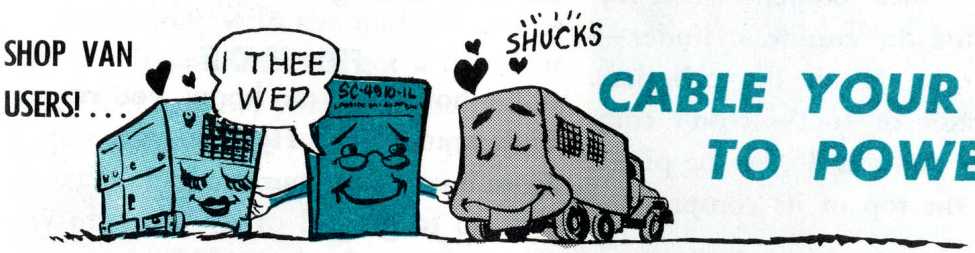


Maybe it's not your master brake cylinder's fault if it's leaking. How about the breather valve in the vent system? Have you got the right one on your 5-ton multifuel engine truck?

MWO 9-2320-211-20/8 (Sep 66) says to replace the original breather with Breather Assembly, Valve, FSN 2520-272-7965.

If you don't have the new breather, you could get a pressure buildup that'll spring a leak in the master cylinder when you hit the brakes.

There's no allowable leakage of the master cylinder. But if you find some moisture in the boot, don't get excited until you've smelled it. It could be rubber preservative put inside the boot in production.



CABLE YOUR WAY TO POWER

With this cable, I thee wed . . . said SC 4910-IL (Oct 66) to the generator and the shop van.

And the same goes for any unit mounting electrically-powered tool or shop sets in either the M109 (G-742) or M220 (G-749) 2½-ton shop vans. The way to carry the juice from your favorite external power source is with a 7-foot cable which goes by the identification of FSN 4910-395-1995 . . . at a cost of $16.54 each.

In a lot of shop setups, though, this 7-foot cable won't reach all the way back to the van. So you'll need a 25-footer identified as FSN 4910-395-1994. This one costs $38.80 each.

Both of these cables are listed on page 49 of SC 4910-IL. So lock eyeballs with a supply support man on this arrangement and just watch what it does for your peace of mind (your maintenance mind, of course).

HYDROSTATIC LOCK . . .

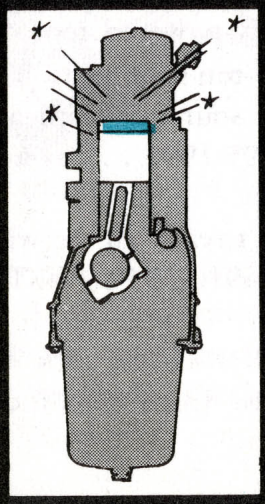
SNEAKY

ENGINE SMASHER

Just try to jam 2 pounds of sugar in a 1-lb bag. You get some idea of what happens if you try to run your vehicle's engine against hydrostatic lock.

Hydrostatic lock happens when liquid gets into an engine cylinder—sometimes even in all the cylinders. Liquid—water or fuel—won't compress like air and gas do. So the piston can't go to the top of its compression stroke.

That liquid might's well be rock!



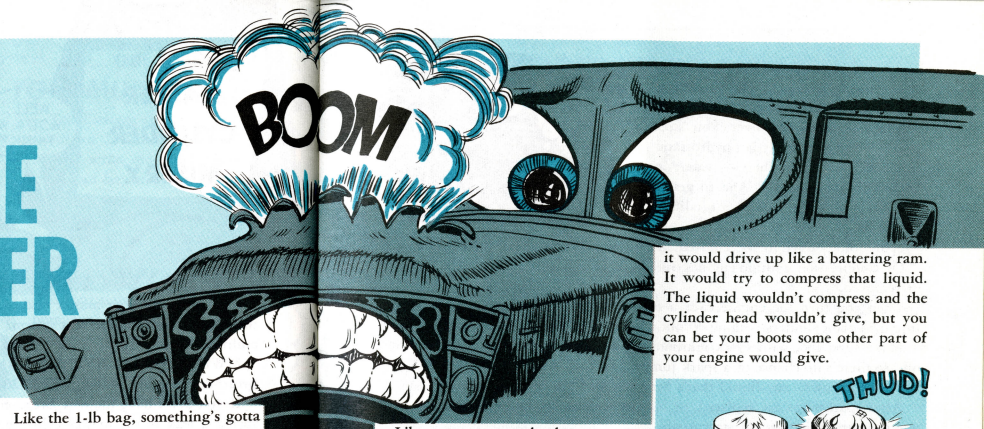
Like the 1-lb bag, something's gotta give. In your engine, the connecting rod'll probably be bent or the piston broken. If the engine isn't ruined, it'll be badly damaged.

FEEL 'ER OUT

So how do you know you've got hydrostatic lock? How do you stop it from bustin' up your engine? What do you do to get rid of it? How do you keep it from coming back?

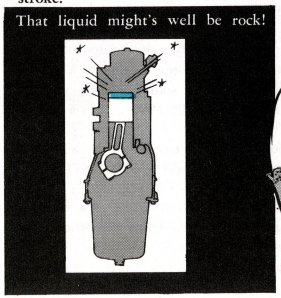
SNEAKY

ENGINE SMASHER



Just try to jam 2 pounds of sugar in a 1-lb bag. You get some idea of what happens if you try to run your vehicle's engine against hydrostatic lock.

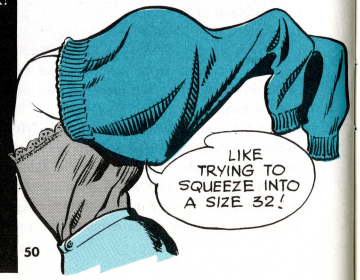
Hydrostatic lock happens when liquid gets into an engine cylinder—sometimes even in all the cylinders. Liquid—water or fuel—won't compress like air and gas do. So the piston can't go to the top of its compression stroke.



Like the 1-lb bag, something's gotta give. In your engine, the connecting rod'll probably be bent or the piston broken. If the engine isn't ruined, it'll be badly damaged.

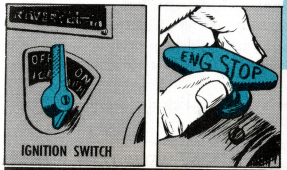
FEEL 'ER OUT

So how do you know you've got hydrostatic lock? How do you stop it from bustin' up your engine? What do you do to get rid of it? How do you keep it from coming back?



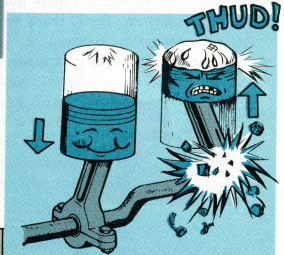
Like you suspect a booby trap, you test your engine for hydrostatic lock before getting down to the business of starting 'er up.

This's done with the ignition switch off. Or, if your truck's got a diesel or multifuel engine, you hold the engine stop handle in the "fuel off" position.



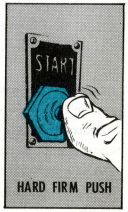
"IGNITION OFF" OR "FUEL OFF" WHILE CHECKING FOR HYDROSTATIC LOCK IS A MUST.

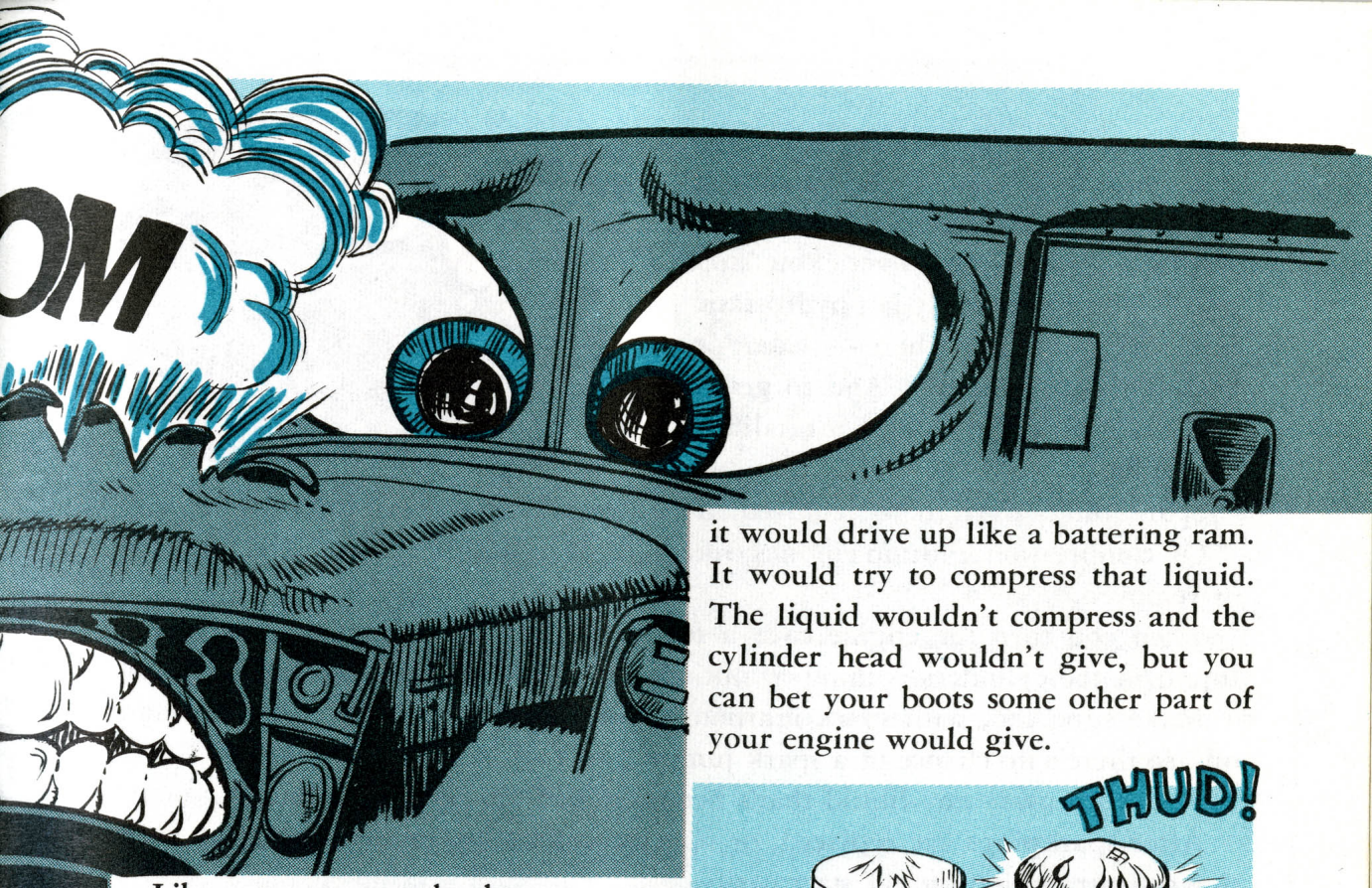
Figure what would happen if you got ignition in a "clear" cylinder when there was liquid in another cylinder. The piston with liquid sittin' on top of it would drive up like a battering ram. It would try to compress that liquid. The liquid wouldn't compress and the cylinder head wouldn't give, but you can bet your boots some other part of your engine would give.



WATER IN ONE CYLINDER WHILE ANOTHER IS CLEAR TO FIRE! . . . SOMETHING'S GOTTA GIVE!

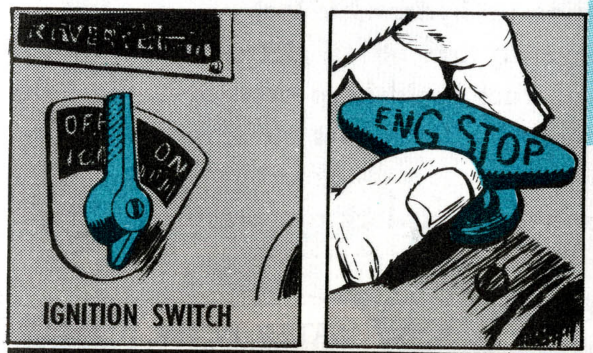
With "ignition off" or "fuel off," turn the engine over for 2 or 3 seconds using the starter. You press hard but quick on the starter switch. If you don't press hard and firm, the contacts will burn.





Like you suspect a booby trap, you test your engine for hydrostatic lock before getting down to the business of starting 'er up.

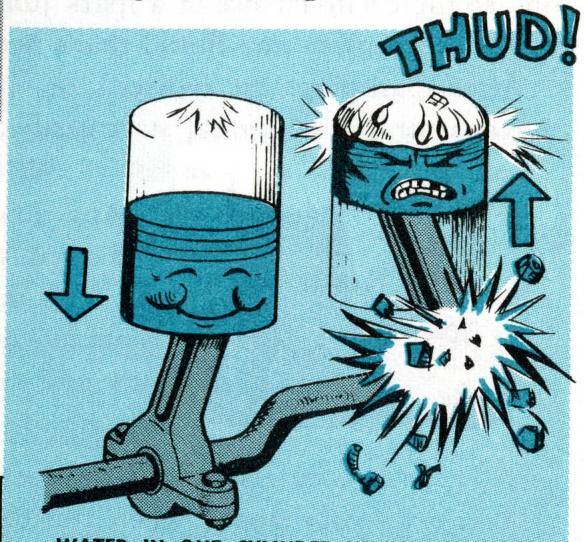
This's done with the ignition switch off. Or, if your truck's got a diesel or multifuel engine, you hold the engine stop handle in the "fuel off" position.



IGNITION SWITCH

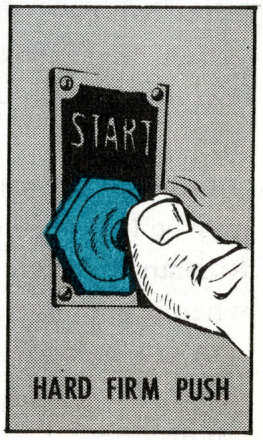
"IGNITION OFF" OR "FUEL OFF" WHILE CHECKING FOR HYDROSTATIC LOCK IS A MUST.

Figure what would happen if you got ignition in a "clear" cylinder when there was liquid in another cylinder. The piston with liquid sittin' on top of it would drive up like a battering ram. It would try to compress that liquid. The liquid wouldn't compress and the cylinder head wouldn't give, but you can bet your boots some other part of your engine would give.



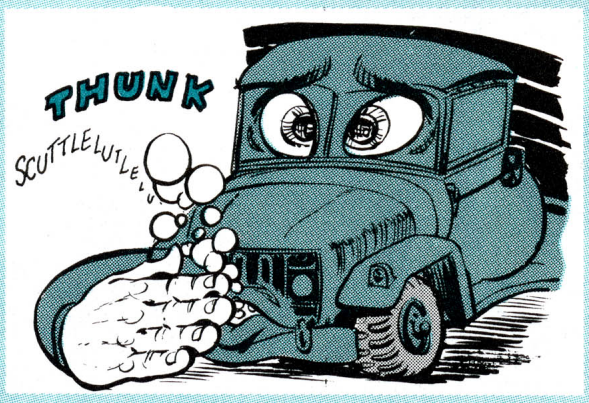
WATER IN ONE CYLINDER WHILE ANOTHER IS CLEAR TO FIRE! . . . SOMETHING'S GOTTA GIVE!

With "ignition off" or "fuel off," turn the engine over for 2 or 3 seconds using the starter. You press hard but quick on the starter switch. If you don't press hard and firm, the contacts will burn.



HARD FIRM PUSH

RELIEVE "INDIGESTION"



If you hear—or feel—a jolting thunk, or if the engine just seems to want to stop turning over, you stop quick. You've probably got hydrostatic lock. Whatever's in there—water or fuel—has to come out. And to get it out you'll need the help of a qualified mechanic.

Spark plugs have to be removed, if you've got a spark ignition engine.

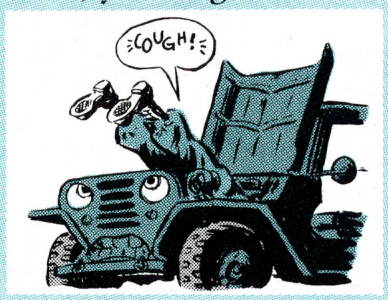
On compression ignition engines, fuel injector nozzles only have to be loosened or removed.

Then you turn the engine over a few times. As the pistons come up, any liquid in the cylinders is dumped out the sparkplug or injector assembly holes.

Make sure, tho, with spark ignition engines that you still have the "ignition off" so there's no chance of a spark jumping to fuel being pumped out.

And flush away any liquid that's been pumped out of your cylinders.

After sparkplugs are replaced, or injector nozzle assemblies tightened back down, your engine should start easily.



H_2O BLUES

Any time you see signs of coolant leaks—drips and seeps, water in crankcase, oil in radiator—sing out for a mechanic to make a close check. Repair or replacement now may save you from hydrostatic lock and even worse troubles later.

FUEL IS FOE TOO

Fuel can be a real Sneaky Pete in setting up hydrostatic lock.

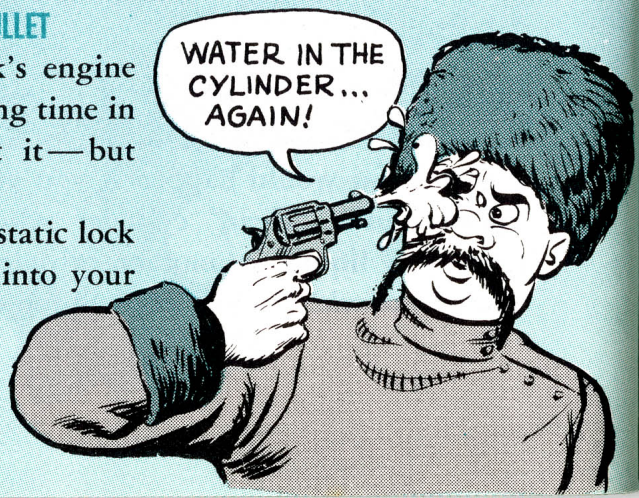
You drop your guard when you forget to turn off all electrical switches. If they're left on after the engine's stopped, fuel could keep pressing against the manifold heater valves. A little leak here over a few hours can give your engine a real bad case of hydrostatic lock.

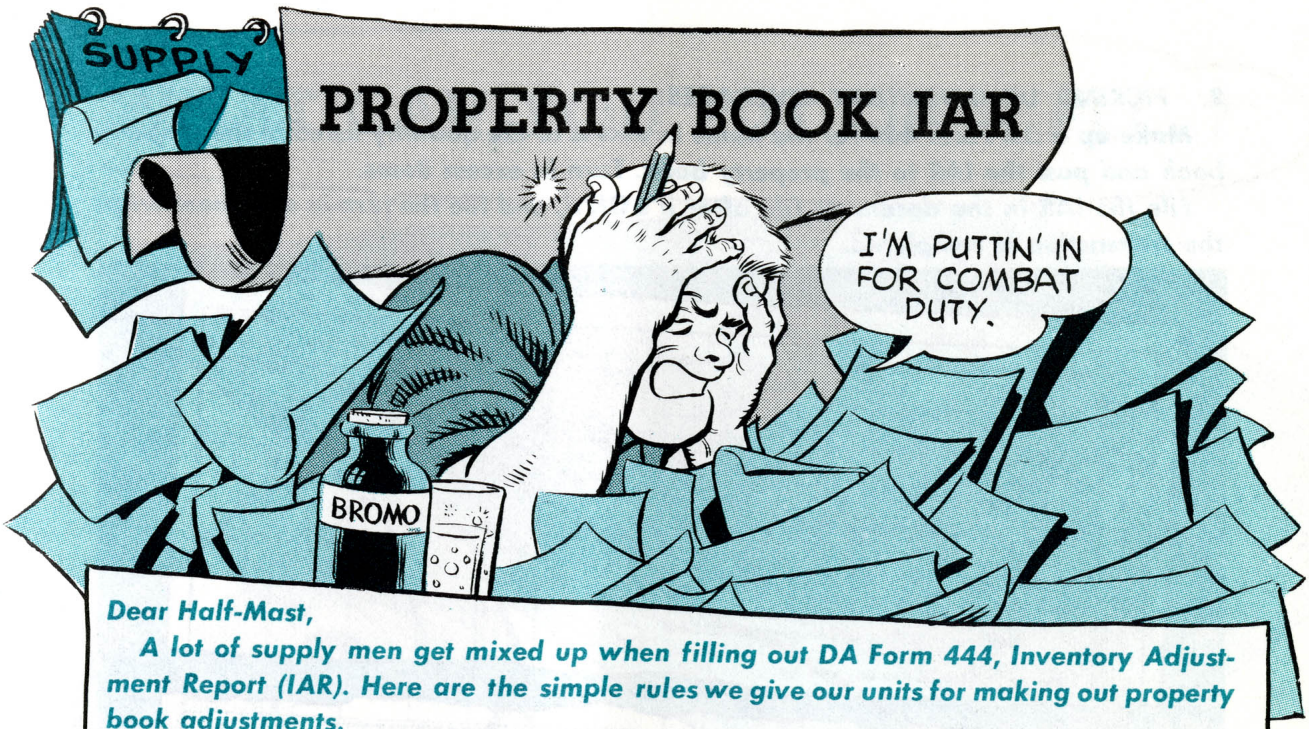
Bum fuel injector nozzles can lead to hydrostatic lock too, leaking fuel right into the cylinders.

WET BULLET

Getting hydrostatic lock in your truck's engine may be like pulling the trigger at the wrong time in Russian Roulette. The odds are against it—but when it does happen . . . ! ! !

A few seconds spent checking for hydrostatic lock better the odds against firing a "bullet" into your engine.





Dear Half-Mast,

A lot of supply men get mixed up when filling out DA Form 444, Inventory Adjustment Report (IAR). Here are the simple rules we give our units for making out property book adjustments.

Use DA Form 444 for:

1. CORRECTING ERRORS IN EQUIPMENT NOMENCLATURE.

For example, when a property book page calls a ¼-ton truck an M151, instead of an M151A1; a mount, trp, MG, cal .30, M2 is carried as a mount, trp, MG, cal .30, M1917A1, etc.

INVENTORY ADJUSTMENT REPORT (TM 38-403)

STATION: Fort Mack, Maryland | DATE PREPARED: 9Sep66 | PAGE NO: 1 | NUMBER OF PAGES: 1

SUPPLY BRANCH: H&H and Ser Btry, 15th FA Bn | PROPERTY CLASS: | CLASS CODE: | OWNERSHIP: Army | CONDITION: Serv | REPORT NO:

ITEM NUMBER	STOCK OR PART NUMBER	NOMENCLATURE	UNIT	RECORDED QUANTITY	INVENTORY QUANTITY	ADJUSTMENT QUANTITY OVER	ADJUSTMENT QUANTITY SHORT	UNIT STANDARD PRICE	ADJUSTMENT AMOUNTS DEBIT	ADJUSTMENT AMOUNTS CREDIT
1	2320-763-1092	Truck, 1/4-T, M151A1	ea	0	2	2	0	$2880.00	2	
2	2320-542-4783	Truck, 1/4-T, M151	ea	8	6	0	2	$2880.00		2

BASIS: Error in vehicle nomenclature.
No shortage exists.

AUTHORITY: AR 735-35 (Oct 65) para 3-8.

I CERTIFY THAT THE ABOVE INVENTORY ADJUSTMENTS ARE NECESSITATED BY DIFFERENCES BETWEEN THE BALANCES AS RECORDED ON THE STOCK CARDS AND THE BALANCES COUNTED ON THE PHYSICAL INVENTORY MADE ON _____

LOCATION OF COUNT SLIPS DISCLOSING ABOVE DISCREPANCIES

XXXXXXXXXXXX PBO
Lewis B. Johns
1LT, Arty

NAME: LEWIS B. JOHNS

DATE APPROVED: 9Sep66

PLACE:

DIRECTOR OF SUPPLY AND MAINTENANCE (Show proper title of approving authority)
PETER A. KELLY, LTC, Arty
Commanding

VOUCHER NO: 6252-009

ACCT TRANS CODE:

U. S. GOVERNMENT PRINTING OFFICE 1954—O-901988

DA FORM 1 AUG 54 444 PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

Pick up the incorrectly identified item on a DA Form 444, and post the IAR action on the property book page.

If two different types or models of authorized equipment (say the M151 and the M151A1) have been accidentally accounted for on one page, make a new page for one of the items, and post the IAR action on the original page, which continues to record the other item.

File a copy of the IAR in the document file after it's been OK'd.

PS MORE

2. PICKING UP INVENTORY OVERAGES.

Make up a DA Form 444 for the items in excess of the quantity listed in the property book and post the IAR to the property book. Turn in excess items.

File the IAR in the document file after it's OK'd, and file the turn-in document when the transaction is completed.

INVENTORY ADJUSTMENT REPORT (TM 38-403)

STATION: Fort Mack, Maryland | DATE PREPARED: 11 Aug 66 | PAGE NO: 1 | NUMBER OF PAGES: 1

SUPPLY BRANCH: H&H and Ser Btry, 15th FA Bn | PROPERTY CLASS | CLASS CODE | OWNERSHIP: Army | CONDITION: Ser | REPORT NO

ITEM NUMBER	STOCK OR PART NUMBER	NOMENCLATURE	UNIT	RECORDED QUANTITY	INVENTORY QUANTITY	ADJUSTMENT QUANTITY OVER	ADJUSTMENT QUANTITY SHORT	UNIT STANDARD PRICE	ADJUSTMENT AMOUNTS DEBIT	ADJUSTMENT AMOUNTS CREDIT
1	6650-670-2419	Binoculars 6x30, M 3, Mil Ret	ea	25	26	1	0	$97.00		1
2	6665-530-1210	Radiacmeter, IM-93/UD	ea	10	11	1	0	$6.00		1

BASIS: Inventory Overage
DA Form 2765, Turn-in Document No. 6223-008
DA Form 2765, Turn-in Document No. 6223-009

Authority: AR 735-35 (Oct 65), para 3-8.

I CERTIFY THAT THE ABOVE INVENTORY ADJUSTMENTS ARE NECESSITATED BY DIFFERENCES BETWEEN THE BALANCES AS RECORDED ON THE STOCK CARDS AND THE BALANCES COUNTED ON THE PHYSICAL INVENTORY MADE ON

LOCATION OF COUNT SLIPS DISCLOSING ABOVE DISCREPANCIES

XXXXXXXXXXXXXX PBO
Lewis B. Johns
1LT, Arty

NAME: LEWIS B. JOHNS

DATE APPROVED: 6223

PLACE

DIRECTOR OF SUPPLY AND MAINTENANCE (Show proper title of approving authority)
PETER A. KELLY, LTC, Arty
Commanding

VOUCHER NO: 6223-007

ACCT TRANS CODE

DA FORM 1 AUG 54 444 PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE.

U.S. GOVERNMENT PRINTING OFFICE 1954—O-901368

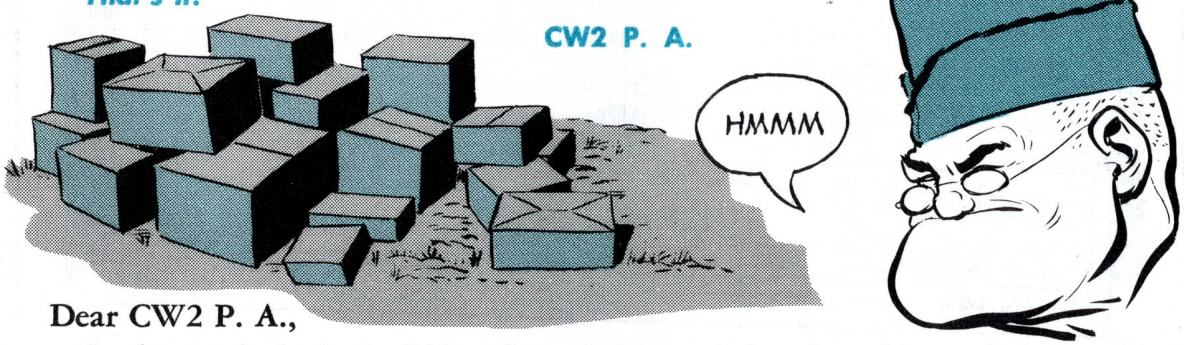
NO IAR

An FSN or a nomenclature change from supply support or from a supply publication doesn't take an IAR. In this case just make the correction on the property book page and note the authority listing the change.

The IAR is not authorized when it's possible that items have been substituted or lost.

The CO, for whom the book is maintained, approves IAR's.

That's it.



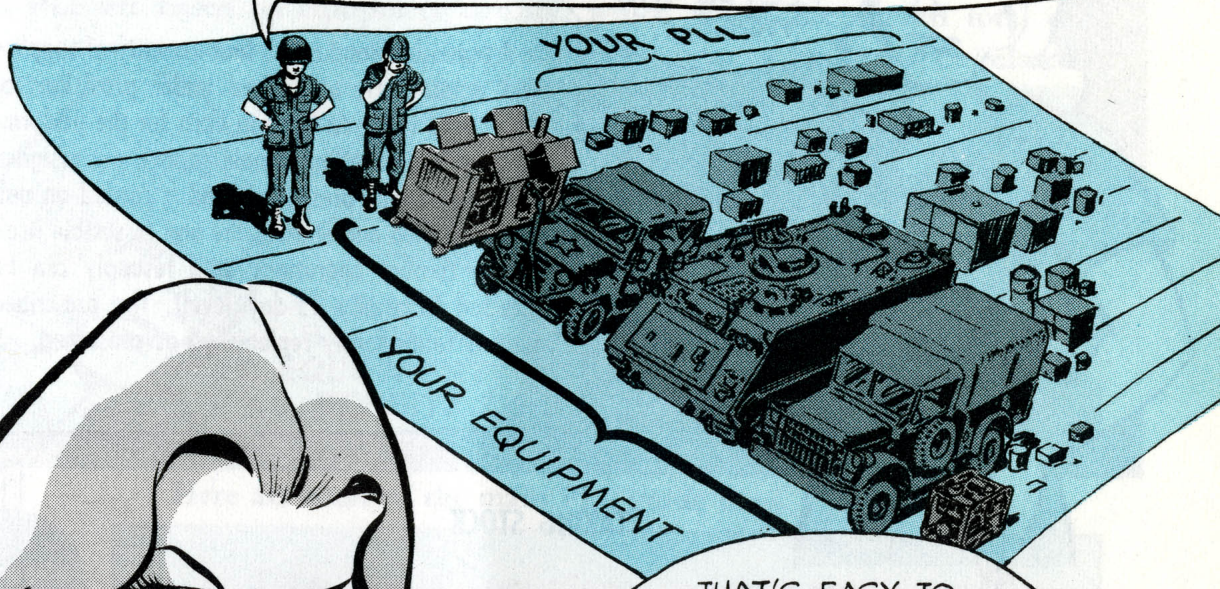
Dear CW2 P. A.,

Looks good. And, the IAR takes minimum info when it's used for making minor adjustments in the property book. You can use only whatever blocks and columns are needed to identify and describe the adjustment.

For example, the unit price info doesn't have to be totaled in the "Adjustment Amounts" columns. If you find it helpful, tho, you can use those columns to record the **quantity** of items you're crediting or charging to your property book.

Half-Mast

WHAT CAN YOU PUT ON A PLL...?



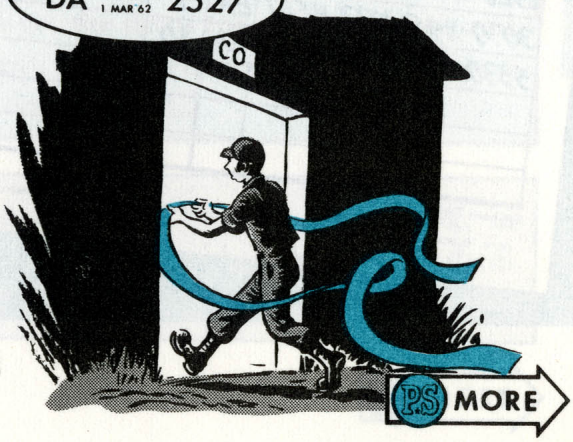
THAT'S EASY TO ANSWER... WHAT DO YOU NEED? A GOOD **PLL** (PRESCRIBED LOAD LIST) COVERS SUPPLIES AND REPAIR PARTS AN OUTFIT MUST HAVE **ON HAND**, OR ON ORDER, FOR SUSTAINED OPERATIONS— USUALLY A 15-DAY SUPPLY.

To put it another way, any item that's authorized for stockage in your supply or maintenance publications, plus any other items OK'd for organizational maintenance, which rack up demand info (DA Form 2527), are authorized for your PLL.

RECORD OF DEMANDS
(AR 735-35)

DATE	BOH DOCU. NO.	QTY DEMANDED	CUMULATIVE DEMANDS	DATE
6346-013	0	(1)	1	
7017-001	0	(1)	1	
7038-030	0	(1)	1	

DA FORM 1 MAR 62 2527



PLL GUIDES

The basic guides on PLL control are AR 735-35 (Oct 65), Section VI, and your local PLL SOP. And, the CO responsible for the equipment is the approving authority for the PLL. When it's possible, the CO may have his PLL made up by his supply support outfit, but the list is made up for his OK.

PS MORE

DA PLL SOP

A prescribed load is . . . that quantity of supplies and repair parts authorized under provisions of AR 735-35 to be on hand in units for the performance of organizational maintenance on assigned equipments. The prescribed load is carried on unit transportation and enables the unit to sustain itself during combat operations until resupply can be effected (normally 15-day level). The prescribed load is continuously replenished as consumed.

TAKING STOCK

A PLL is made up on DA Form 2063-R and takes anything authorized at organizational level to keep your unit shootin', scootin' and communicating.

PRESCRIBED LOAD LIST

2. UNIT/ORGANIZATION TITLE: H+HCo

4. ITEM OF EQUIPMENT:

5. DENSITY:

1. DATE: 13 APRIL 1967

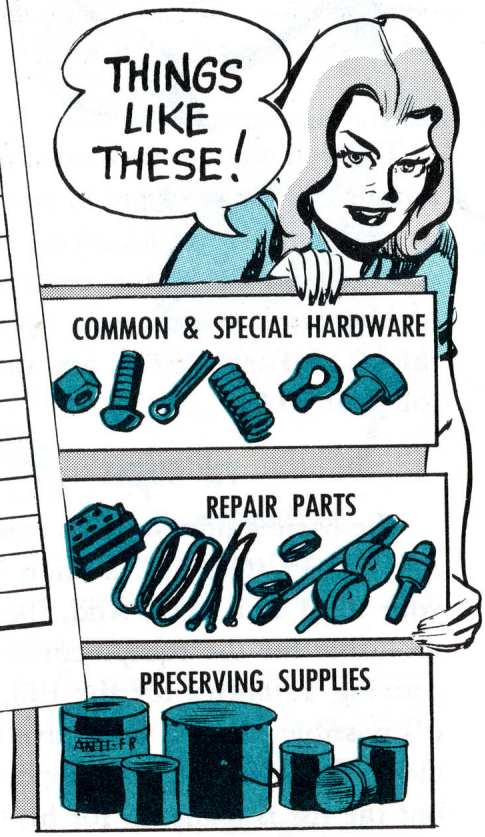
3. UNIT IDENTIFICATION CODE: WABCT2

6. TECHNICAL MANUAL:

STOCK NUMBER & NOUN	UNIT OF ISSUE	AUTHORIZED QTY OP	AUTHORIZED QTY BOXED	REMARKS
2540-640-2267 BLADE	EA	2		
2910-735-1316 FILTER	EA	1		
2910-753-9118 CAP	EA	3		
2920-391-4278 DISTR	EA	2		
2920-828-0117 CABLE	EA	2		
2920-953-9784 REG	EA	2		
2920-314-0752 MUFFLER	EA	2		
3030-849-1033 BELT	EA	1		
5330-050-3351 NUT	EA	10		

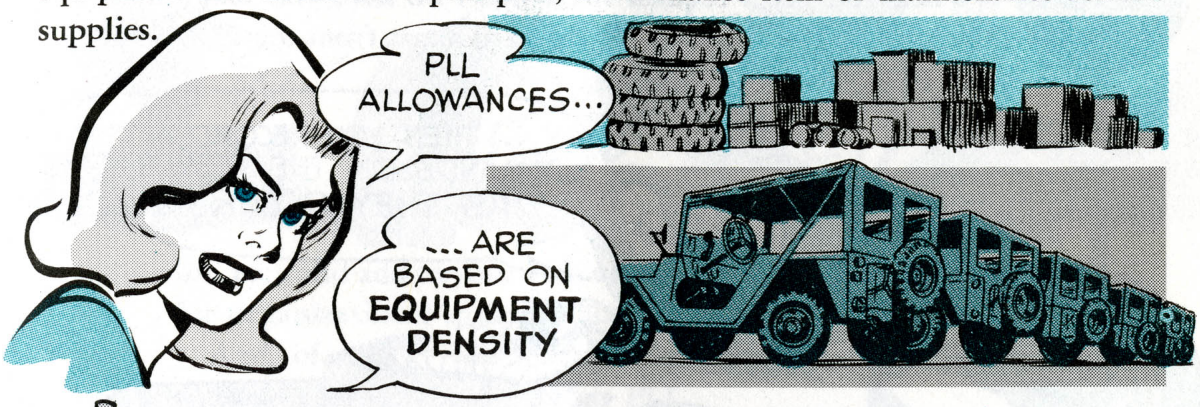
DA Form 2063-R, 1 Sep 65

NOTE: BLOCKS NO. 4, 5, AND 6 WILL NOT BE USED ON THE CONSOLIDATED PRESCRIBED LOAD LIST.



PLL SIZE & WEIGHT

The specific items and quantities authorized by equipment parts manuals for your PLL are based on equipment density, which means the overall total of equipment that needs the repair part, maintenance item or maintenance related supplies.



Here are some of the main PLL guide lines:

STOCKAGE LEVEL

1. TM's list **minimum** allowances for 15 days of supply.

INITIAL PLL STOCKAGE

2. On an **initial** PLL you can stock all repair parts which show a stockage allowance in the TM's.

Some manuals list allowances in round numbers and use equipment density spread columns. To find your PLL allowance you just check the correct column.

Other manuals show an allowance factor and provide a formula to help you work out your PLL allowance. And, if the answer is anywhere from 0.5 to 2.4, you're authorized to stock 2 each of an item on your PLL. If the answer is 0.4 or less, you're not authorized to stock the item on your initial PLL.

AS NEEDED ITEMS

3. If your equipment density is too low to allow initial stockage of items listed in either type of manual . . . no sweat. You haven't lost out yet. You can get the items for use as needed, and keep demand records on 'em. Then when an item collects 3 separate demands it can go on your PLL.

AS REQUIRED REPAIR PARTS

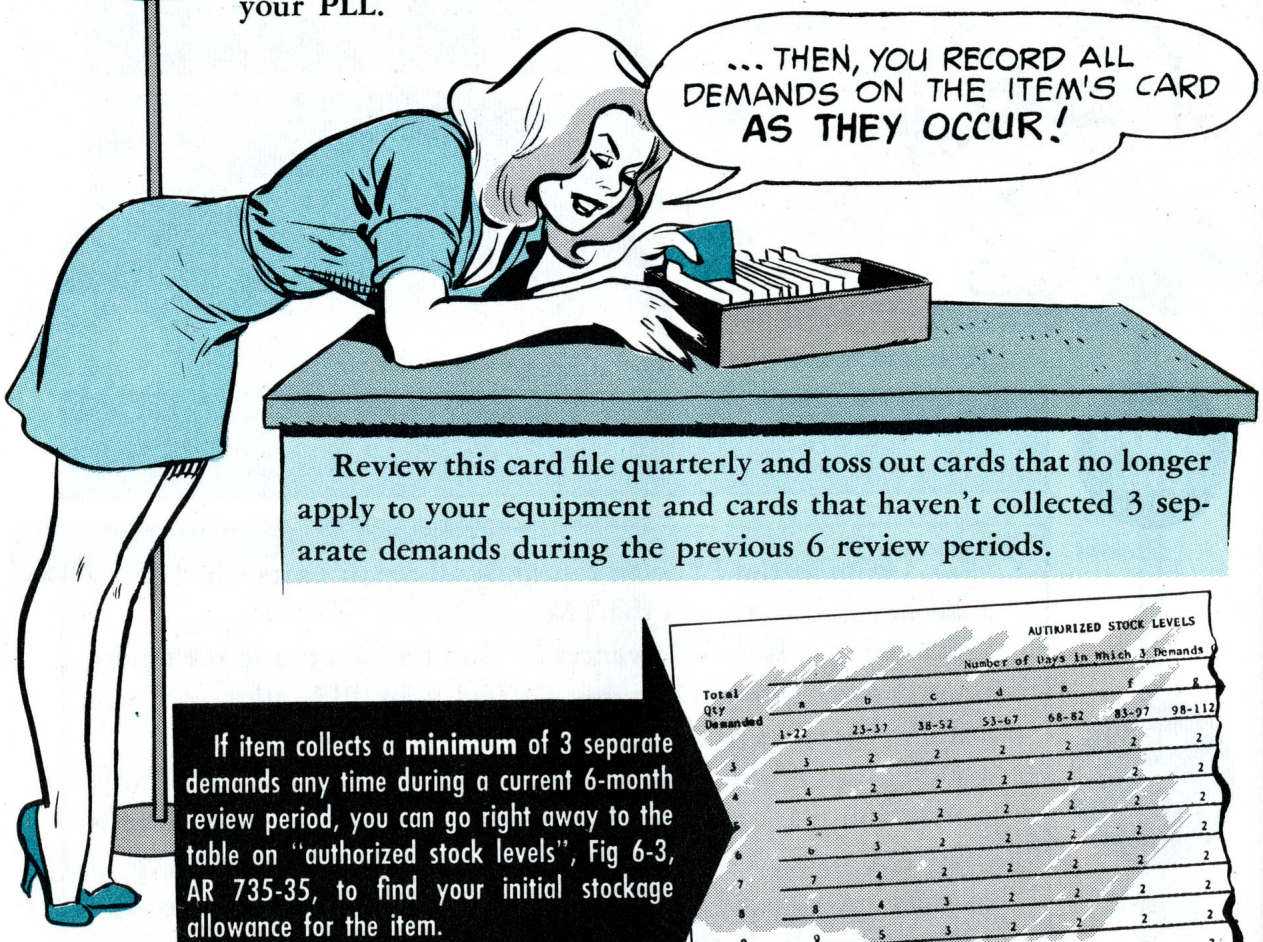
4. Repair parts listed "as required" or with an asterisk, in TM's, are not authorized on initial PLL, either. You order them as needed and start keeping demand records on 'em, too.

PS MORE

ADDING ITEMS TO PLL

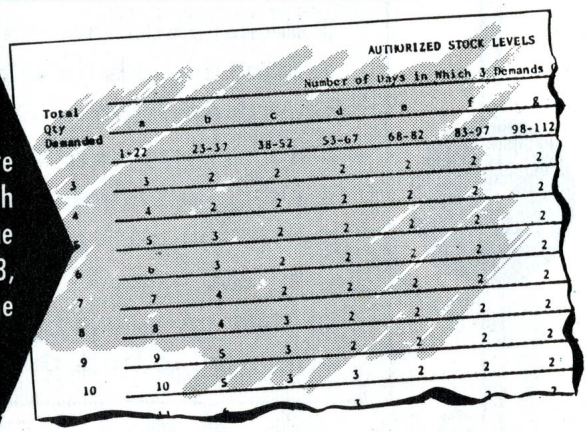
The items you collect demand info on, before you put 'em on your PLL, are pegged "Demand Supported" or "DS" items on your PLL records (DA Form 1543).

When you get a request for a non-PLL item you make up a DA Form 2527 for it and file the card apart from the 2527's for your PLL.



Review this card file quarterly and toss out cards that no longer apply to your equipment and cards that haven't collected 3 separate demands during the previous 6 review periods.

If item collects a **minimum** of 3 separate demands any time during a current 6-month review period, you can go right away to the table on "authorized stock levels", Fig 6-3, AR 735-35, to find your initial stockage allowance for the item.



Then you make a DA Form 1543 for the item, jot "DS", the initial allowance, the date, etc., on the form and file it and the item's DA Form 2527 in your PLL file. You put in a request for the item, and tell support the item has been added to your PLL.

REMARKS
Truck, M35A1
TM 9-2300-223-20P

U/1 ea | 7038 | 2 DS

AUTHORIZED STOCK LEVEL (Use pencil) 2

STOCK NUMBER	ITEM NAME	LOCATION		
2910-203-3322	Filter Element w/spring assy	Hq 63	C	4A

DA FORM 1543, 1 MAY 62 — EDITION OF 1 AUG 55 WILL BE ISSUED AND USED UNTIL 1 MAY 63 UNLESS SOONER EXHAUSTED. — TITLE INSERT (*Informal Accountability*)

5. When your outfit gets any new equipment you quick-like check the equipment manuals, manufacturer's manual or parts list, etc., and add to your PLL whatever the publication authorizes for organizational maintenance stocks.

And, of course, you must always clue supply support when you make any changes on your PLL.

ON-HAND/ON ORDER/ON RECORD

Anything on your PLL must be on hand or on order at all times.

And, you need good demand records so you can easily add to, or adjust your PLL allowances, like AR 735-35, para 6-6 says.

Once your initial PLL is established for an item, your demand records are the authority for your PLL allowances.

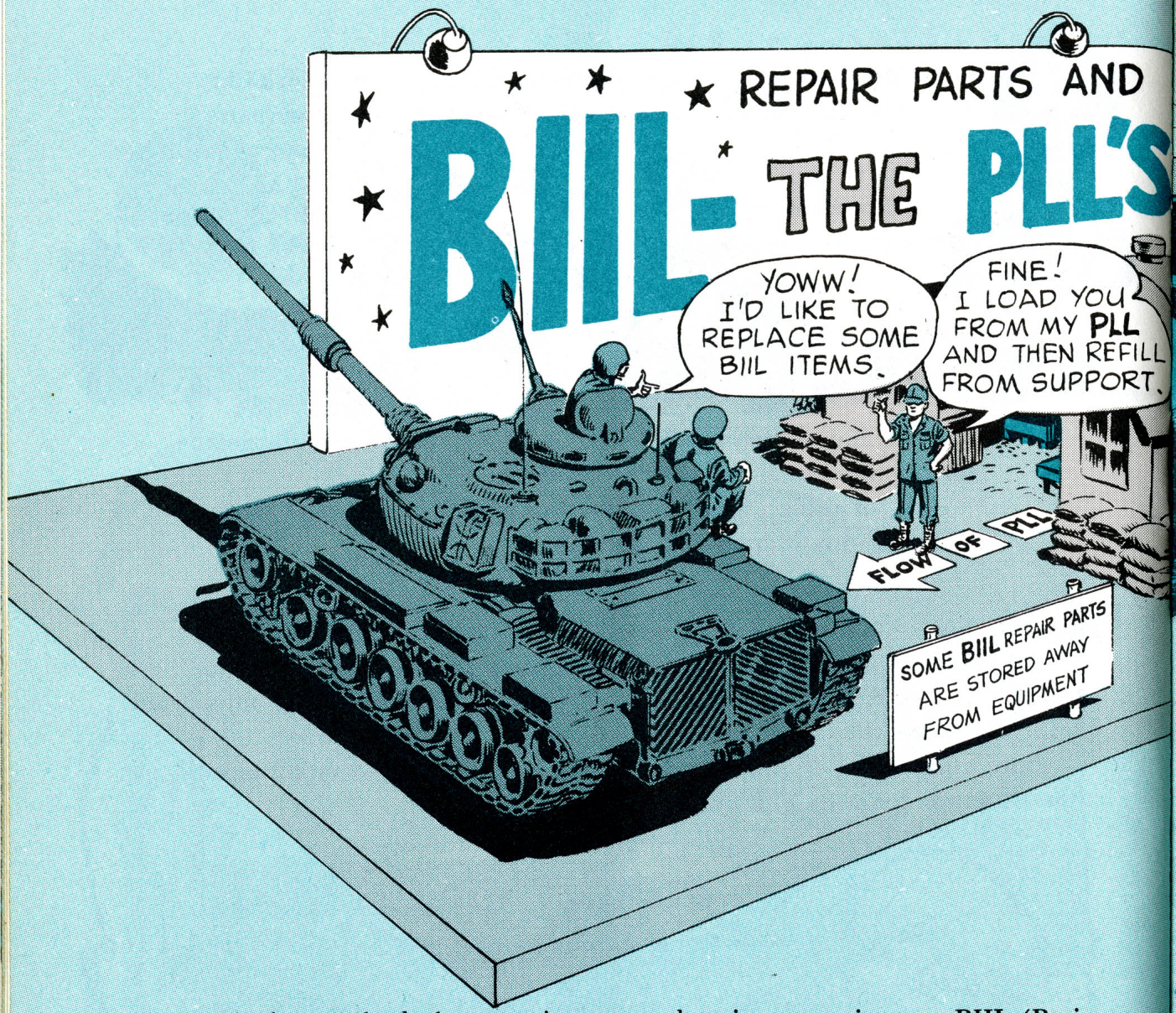
Any items on your PLL that run over 200-bucks each, and any recoverable "T" items, you stock only in the quantities listed in the TM's.

You must keep PLL records on these items, too, since they're part of your PLL, but your allowances on such things are fixed . . . you don't change your stockage levels on 'em, like you do on other things.

TOOLS

And, last but not least, tools, expendable and non-expendable, special and otherwise, are not included on a PLL.

Tool sets and reportable tools are accounted for in the unit property book. And, expendable, non-reportable tools are requested, controlled and accounted for according to local SOP.



Here's the supply deal on repair parts and maintenance in your BIIL (Basic Issue Item List):

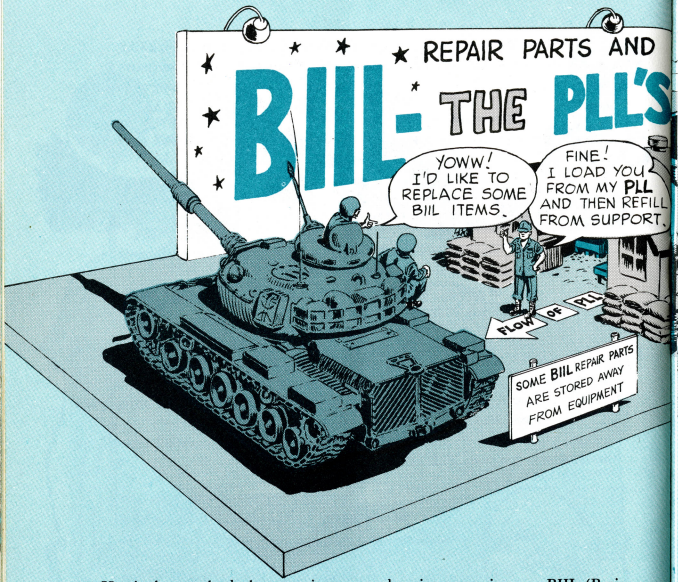
Repair parts and maintenance items issued with specific equipment or authorized for the equipment in the operator's manuals, are not necessarily part of your PLL.

Of course, sometimes items issued with, or authorized for use on equipment, are also included on a PLL, but that's because the items are also authorized by the -20P TM used for computing the PLL.

Normally, the BIIL repair parts and supplies are kept on the equipment. But local SOP sometimes OK's storage of the items in some central location. But in any case it's up to the operators to see that the items are on hand or on order at all times.

BIIL RECORDS

No special records are required for on-equipment repair parts and supplies.



Here's the supply deal on repair parts and maintenance in your BIIL (Basic Issue Item List):

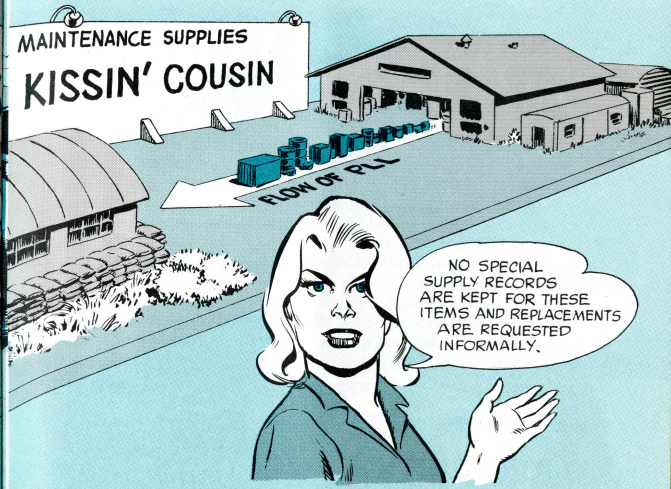
Repair parts and maintenance items issued with specific equipment or authorized for the equipment in the operator's manuals, are not necessarily part of your PLL.

Of course, sometimes items issued with, or authorized for use on equipment, are also included on a PLL, but that's because the items are also authorized by the -20P TM used for computing the PLL.

Normally, the BIIL repair parts and supplies are kept on the equipment. But local SOP sometimes OK's storage of the items in some central location. But in any case it's up to the operators to see that the items are on hand or on order at all times.

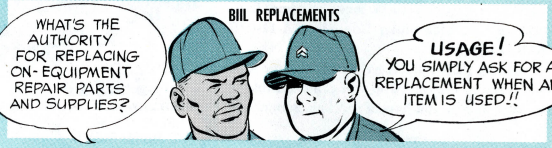
BIIL RECORDS

No special records are required for on-equipment repair parts and supplies.



The TM or the list authorizing the items for the equipment is used to inspect, inventory, and request replacements.

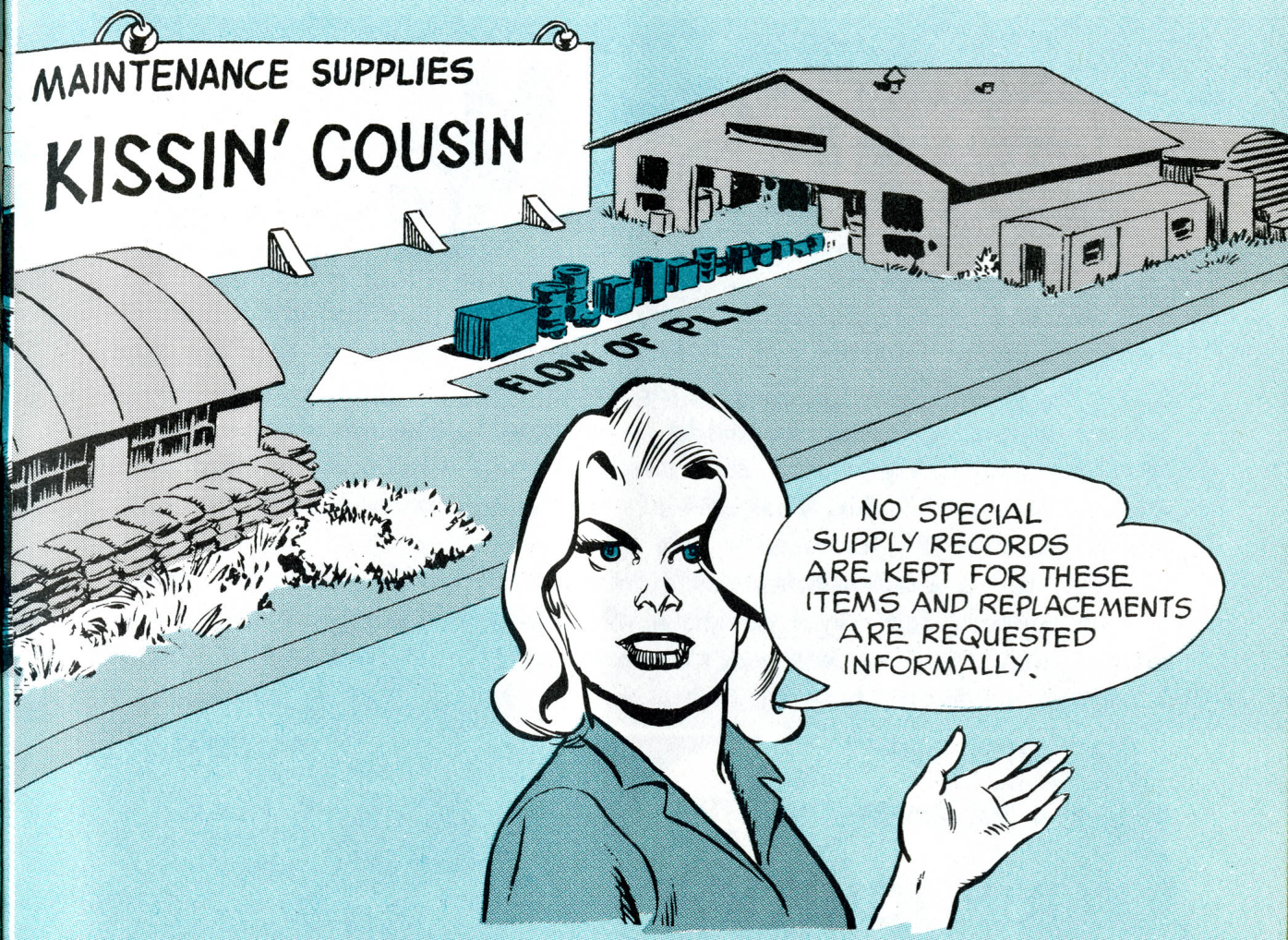
For aircraft, DA Form 2408-17 is required and contains BIIL items and is used for inspections and inventories.



The request goes through the same supply channels used for replacing PLL items. And, if a BIIL item happens to be on the PLL, it can be replaced from the PLL stocks, and the demand recorded on the PLL records.

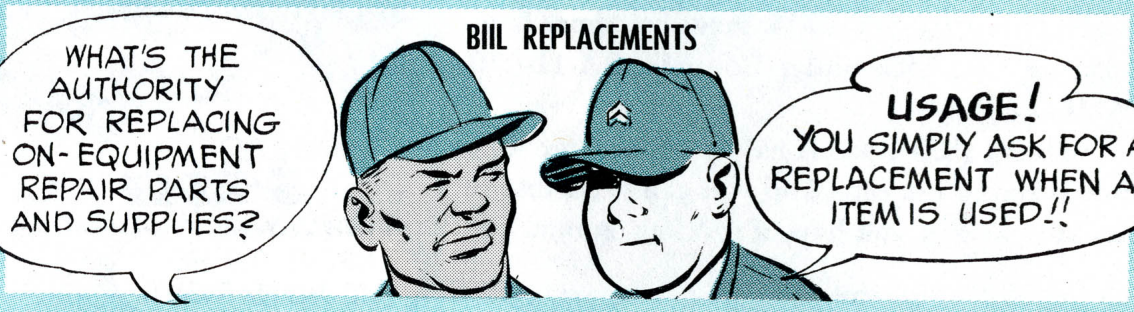
A BIIL item, which is not a PLL item, can be added to the PLL when it racks up three separate demands within 180 days (6 current review periods).

The big thing to keep in mind about BIIL maintenance items is that the stuff must always be handy and ready for the equipment it's authorized for.



The TM or the list authorizing the items for the equipment is used to inspect, inventory, and request replacements.

For aircraft, DA Form 2408-17 is required and contains BIIL items and is used for inspections and inventories.



The request goes through the same supply channels used for replacing PLL items. And, if a BIIL item happens to be on the PLL, it can be replaced from the PLL stocks, and the demand recorded on the PLL records.

A BIIL item, which is not a PLL item, can be added to the PLL when it racks up three separate demands within 180 days (6 current review periods).

The big thing to keep in mind about BIIL maintenance items is that the stuff must always be handy and ready for the equipment it's authorized for.

ONE, TWO, THREE TESTING

Well, maybe you aren't testing if you have the Simpson Model TDS tachometer-dwell test set, FSN 4910-788-8549. The tachometer on that test set may not give an accurate reading on the shielded ignition systems.

That inaccurate reading's caused by a capacitor. Take a look at your manufacturer's manual, Fig 3, Item 28, symbol C-10 and you'll see the capacitor that's causing the trouble. That .033 μf $\pm$ 10% capacitor should be replaced with a .01 μf $\pm$ 10% capacitor.

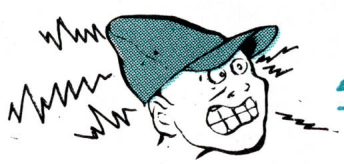
If you still have the capacitor that gives the goofy reading, turn your set in to your support, and they'll get the new capacitor and corrected instruction manual from U.S. Army Weapons Command, ATTN: AMSWE-SMD-T, Rock Island Arsenal, Rock Island, Ill. 61201.

MIGHT BE A REAL SHOCKER . . .

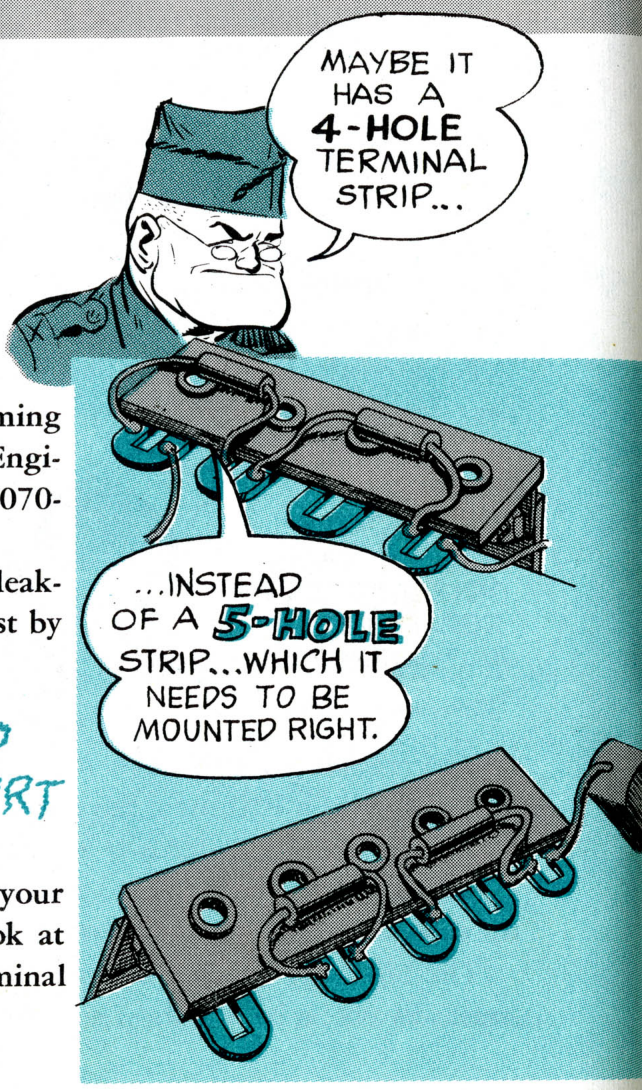
YOUR IGNITION TIMING LIGHT

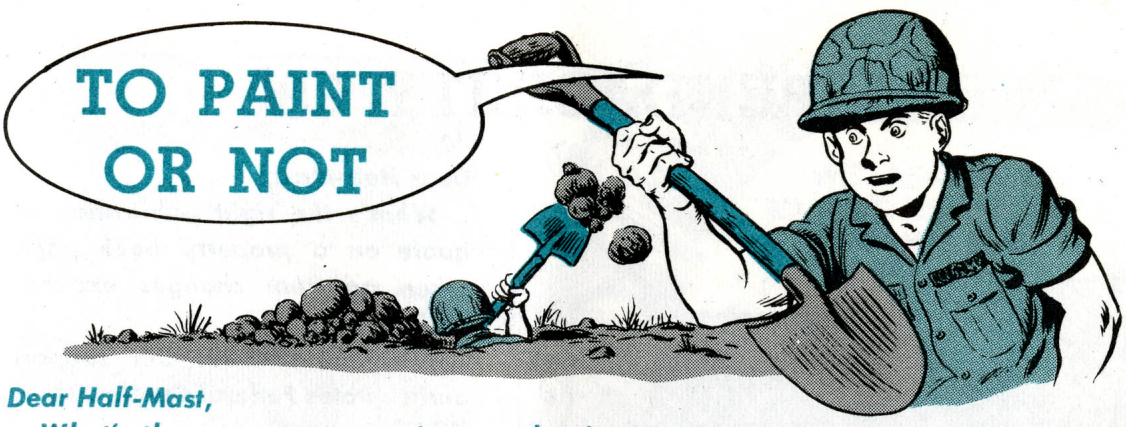
Hold one if you have a power ignition timing light, FSN 4910-500-2135, made by Aimes Engineering Co., Inc., under Contract DA-11-070-AMC-1534(W).

Some of these models have high-voltage leakage through the case, and you can't tell just by looking at it if you have a shocker or not.



To play it safe, take your timing light to your direct support. They'll open it up and look at the terminal strip. It may have a 4-hole terminal strip instead of the needed 5-hole strip.





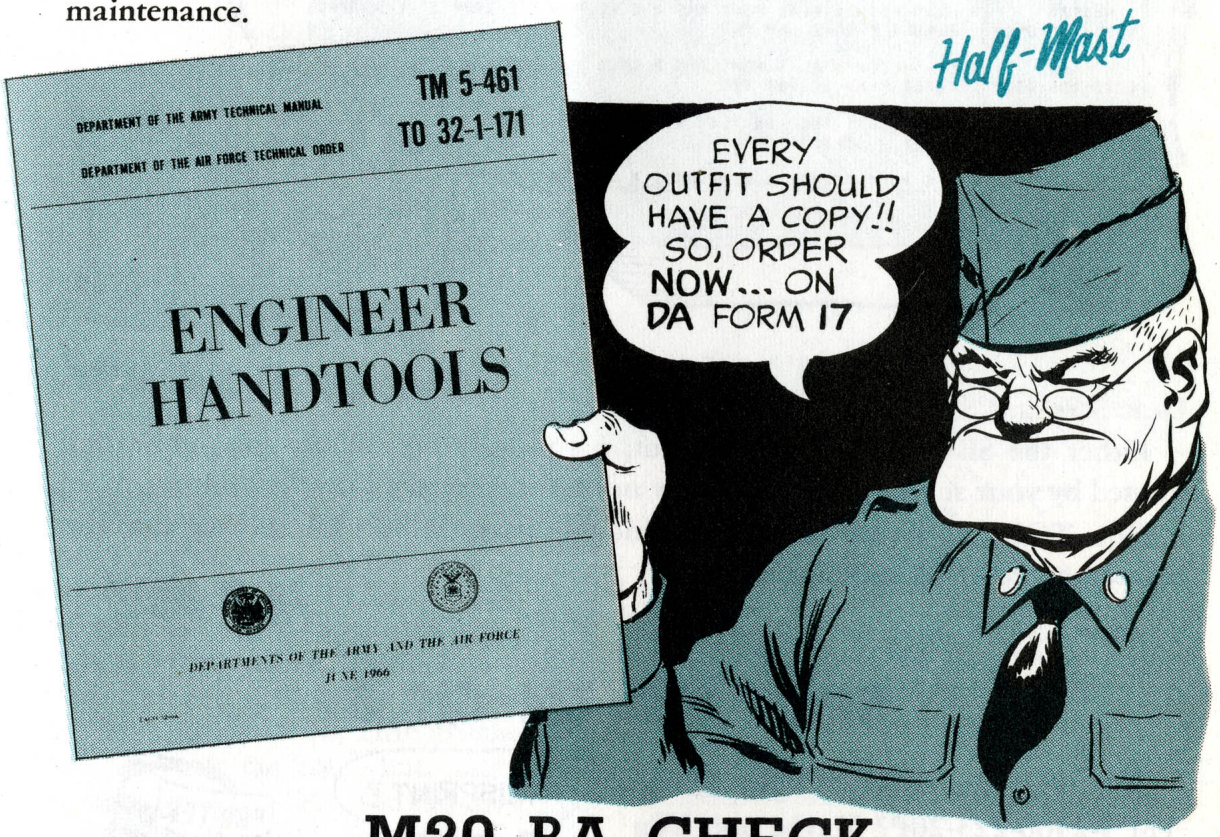
Dear Half-Mast,

What's the scoop on preserving wooden handles for pioneer tools, including emergency tools mounted on vehicles? Do we paint 'em, use linseed oil, or what?

SFC W. B.

Dear Sergeant W. B.,

Glad you asked. Gives me a chance to plug TM 5-461 (Jun 66), Engineer Handtools. Paras 7 and 9 give you the lowdown on when you paint and when you don't paint . . . and the rest of the TM gives you good dope on tool use and maintenance.



M20 BA CHECK

If your M20 breathing apparatus (FSN 4240-678-5263) doesn't have a serial number ask for one soonest. You need the number for the BA's TAER's historical records. Just write to CG, U.S. Army Ammunition Procurement and Supply Agency, ATTN: SMUAP-RSB, Joliet, Illinois 60436. You'll get a serial number and instructions on how to mark it on your BA.

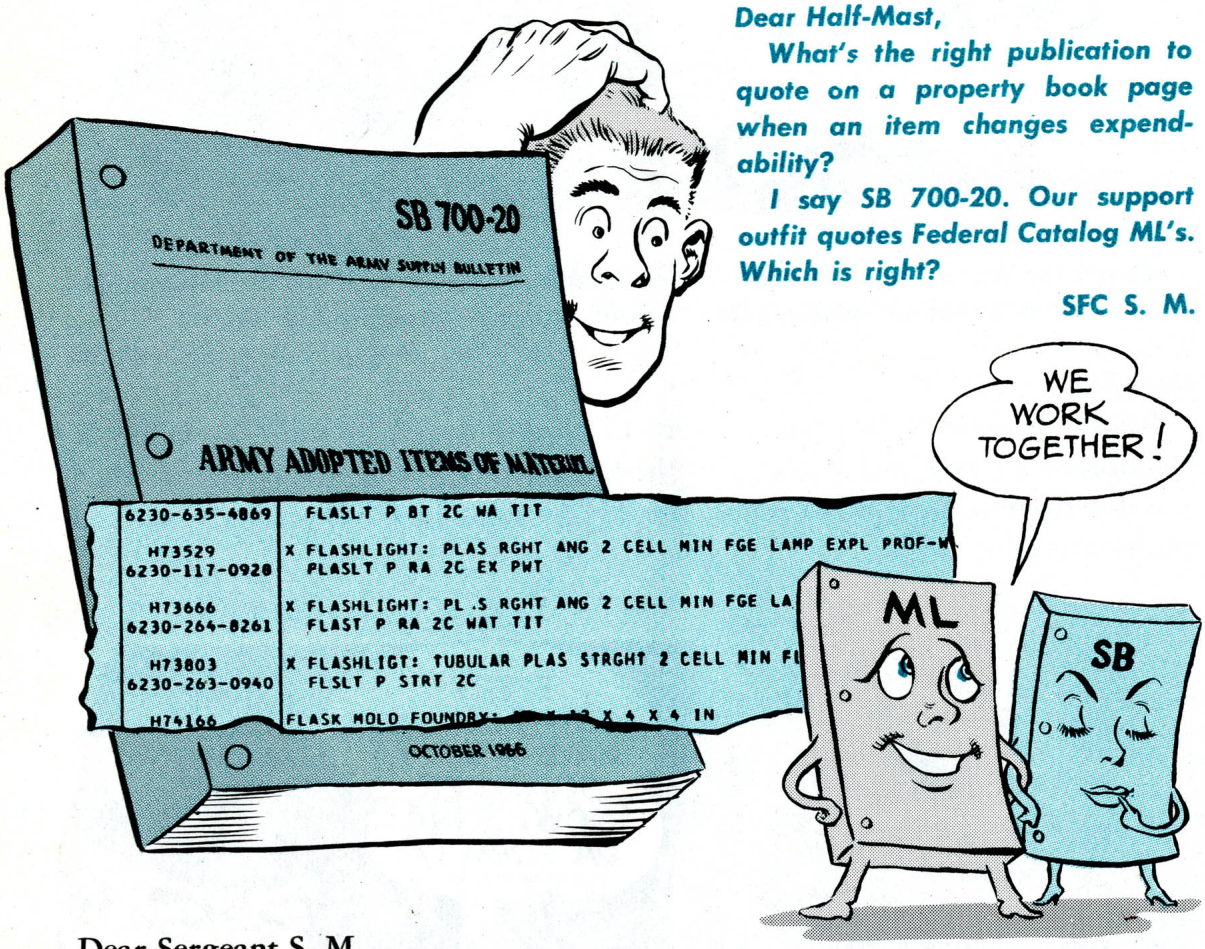
EXPENDABILITY OK

Dear Half-Mast,

What's the right publication to quote on a property book page when an item changes expendability?

I say SB 700-20. Our support outfit quotes Federal Catalog ML's. Which is right?

SFC S. M.



Dear Sergeant S. M.,

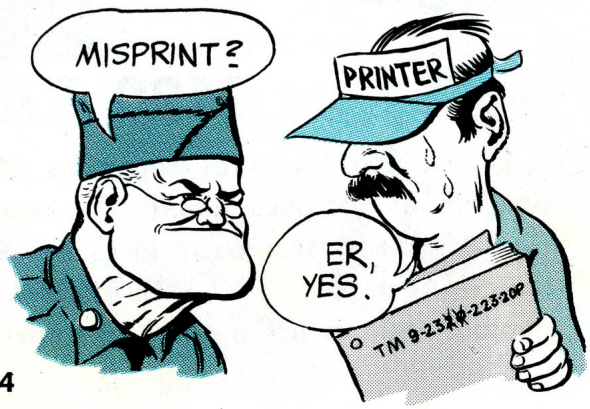
Either the SB or an ML is OK. But, it's usually best to use the publication quoted by your support unit since they normally have the latest poop first.

New TOE's (G-series) identify expendable items in Sect III, so they can also be used as expendability authority.

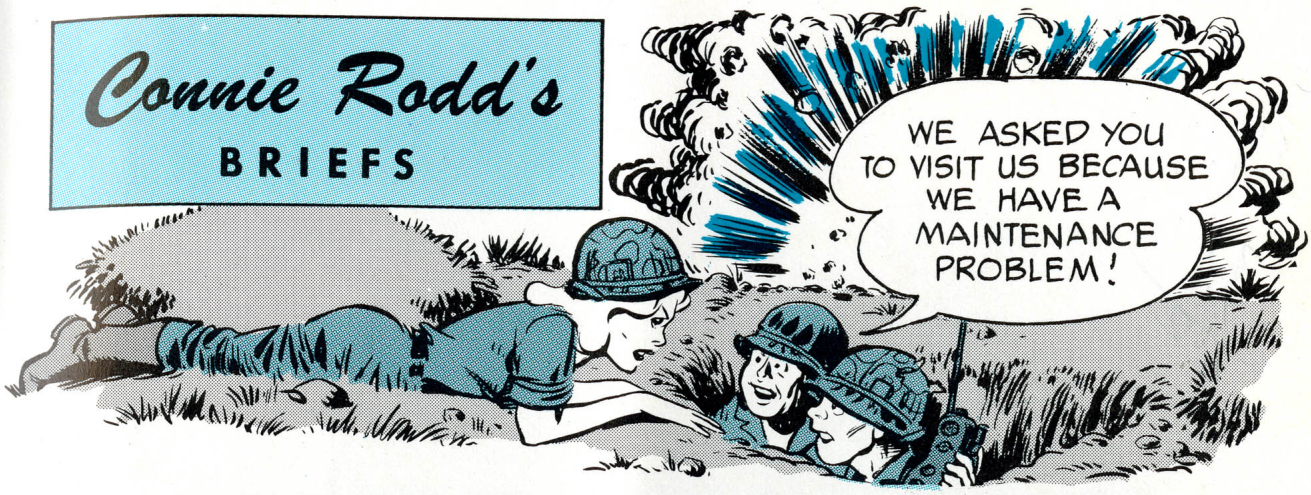
Half-Mast

SPOT PLL TM CH 3

Are you missing Ch 3 (Jul 66) to TM 9-2300-223-20P? Maybe not. You might've misfiled it because it came out mislabeled TM 9-2320-223-20P. You need this change for your current CAOSL (Consolidated Authorized Organizational Stockage List of Repair Parts for Tank-Automotive Materiel).



Connie Rodd's BRIEFS



LSA'S IT FOR M16A1 RIFLES

M16A1 riflemen, hear this!

Word's been flashed by the Army Weapons Command that Lubricating Oil, Semi-Fluid, automatic weapons MIL-L-46000A--known as LSA--is the best lube-preservative for your 5.56-MM M16A1 rifle.

Here're the stock numbers for LSA: 4-oz tube, FSN 9150-889-3522; 1-qt can, FSN 9150-687-4241; 1-gal can, FSN 9150-753-4686.

It may be a little scarce to begin with so don't sweat it. Keep on using PL Special (FSN 9150-273-2389...4-oz can) and rifle grease (FSN 9150-754-0063...1-lb can) until you get your LSA.

Remember this: How good a job your lubricants will do for you depends on how often and how well you clean your rifle and apply these lubes. Here's the system found best by test:

1. Clean your rifle thoroughly after every firing, like the TM requires.

2. Lube the bore and chamber, and the spring in the magazine lightly. Lightly--that means with a clean rag dampened with the lubricant. If you've latched on to some LSA, use it. If not, stick to the PL Special.

3. Lube all other metal parts of your rifle with LSA or PL Special. The working parts should get generous and frequent applications.

4. If you're still using PL Special, don't forget to use rifle grease like it says in the TM. But, after you've switched to LSA, you can forget the rifle grease.

5. No matter what lubes you've got, never use any grease or oil on your ammo or in your magazines. Never!

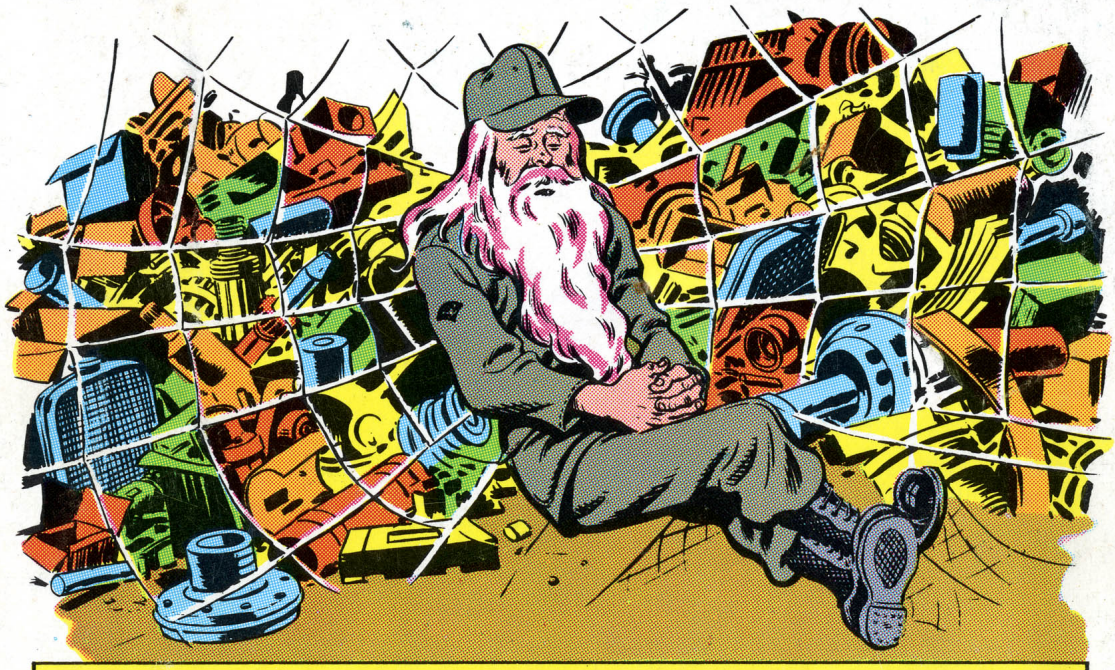
Incidentally, these instructions don't apply to you arctic-type guys. Stick to your low-temperature lubricant (LAW) when firing below zero degrees Fahrenheit.

JULIAN DATE CALENDAR

FOR LEAP YEARS ONLY

Day	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Day
1	001	032	061	092	122	153	183	214	245	275	306	336	1
2	002	033	062	093	123	154	184	215	246	276	307	337	2
3	003	034	063	094	124	155	185	216	247	277	308	338	3
4	004	035	064	095	125	156	186	217	248	278	309	339	4
5	005	036	065	096	126	157	187	218	249	279	310	340	5
6	006	037	066	097	127	158	188	219	250	280	311	341	6
7	007	038	067	098	128	159	189	220	251	281	312	342	7
8	008	039	068	099	129	160	190	221	252	282	313	343	8
9	009	040	069	100	130	161	191	222	253	283	314	344	9
10	010	041	070	101	131	162	192	223	254	284	315	345	10
11	011	042	071	102	132	163	193	224	255	285	316	346	11
12	012	043	072	103	133	164	194	225	256	286	317	347	12
13	013	044	073	104	134	165	195	226	257	287	318	348	13
14	014	045	074	105	135	166	196	227	258	288	319	349	14
15	015	046	075	106	136	167	197	228	259	289	320	350	15
16	016	047	076	107	137	168	198	229	260	290	321	351	16
17	017	048	077	108	138	169	199	230	261	291	322	352	17
18	018	049	078	109	139	170	200	231	262	292	323	353	18
19	019	050	079	110	140	171	201	232	263	293	324	354	19
20	020	051	080	111	141	172	202	233	264	294	325	355	20
21	021	052	081	112	142	173	203	234	265	295	326	356	21
22	022	053	082	113	143	174	204	235	266	296	327	357	22
23	023	054	083	114	144	175	205	236	267	297	328	358	23
24	024	055	084	115	145	176	206	237	268	298	329	359	24
25	025	056	085	116	146	177	207	238	269	299	330	360	25
26	026	057	086	117	147	178	208	239	270	300	331	361	26
27	027	058	087	118	148	179	209	240	271	301	332	362	27
28	028	059	088	119	149	180	210	241	272	302	333	363	28
29	029	060	089	120	150	181	211	242	273	303	334	364	29
30	030		090	121	151	182	212	243	274	304	335	365	30
31	031		091		152		213	244		305		366	31

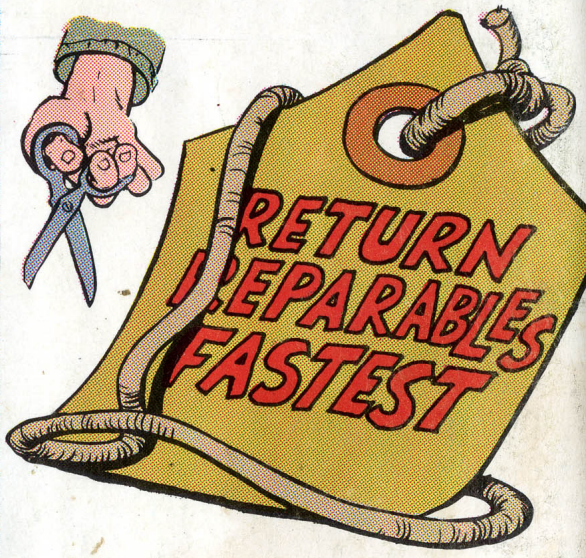
GOT CLUTTERITIS?



If you have anything . . . parts, assemblies or complete pieces of equipment . . . NEEDING REPAIR, turn them in, NOW . . . to the next level of maintenance!! Get 'em repaired, and ready to use!

JULIAN DATE CALENDAR

(PERPETUAL)

Day	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Day
1	001	032	060	091	121	152	182	213	244	274	305	335	1
2	002	033	061	092	122	153	183	214	245	275	306	336	2
3	003	034	062	093	123	154	184	215	246	276	307	337	3
4	004	035	063	094	124	155	185	216	247	277	308	338	4
5	005	036	064	095	125	156	186	217	248	278	309	339	5
6	006	037	065	096	126	157	187	218	249	279	310	340	6
7	007	038	066	097	127	158	188	219	250	280	311	341	7
8	008	039	067	098	128	159	189	220	251	281	312	342	8
9	009	040	068	099	129	160	190	221	252	282	313	343	9
10	010	041	069	100	130	161	191	222	253	283	314	344	10
11	011	042	070	101	131	162	192	223	254	284	315	345	11
12	012	043	071	102	132	163	193	224	255	285	316	346	12
13	013	044	072	103	133	164	194	225	256	286	317	347	13
14	014	045	073	104	134	165	195	226	257	287	318	348	14
15	015	046	074	105	135	166	196	227	258	288	319	349	15
16	016	047	075	106	136	167	197	228	259	289	320	350	16
17	017	048	076	107	137	168	198	229	260	290	321	351	17
18	018	049	077	108	138	169	199	230	261	291	322	352	18
19	019	050	078	109	139	170	200	231	262	292	323	353	19
20	020	051	079	110	140	171	201	232	263	293	324	354	20
21	021	052	080	111	141	172	202	233	264	294	325	355	21
22	022	053	081	112	142	173	203	234	265	295	326	356	22
23	023	054	082	113	143	174	204	235	266	296	327	357	23
24	024	055	083	114	144	175	205	236	267	297	328	358	24
25	025	056	084	115	145	176	206	237	268	298	329	359	25
26	026	057	085	116	146	177	207	238	269	299	330	360	26
27	027	058	086	117	147	178	208	239	270	300	331	361	27
28	028	059	087	118	148	179	209	240	271	301	332	362	28
29	029		088	119	149	180	210	241	272	302	333	363	29
30	030		089	120	150	181	211	242	273	303	334	364	30
31	031		090		151		212	243		304		365	31

YOU COULD NEED THOSE ITEMS TOMORROW!